



RA-ESG
SOLAR SOLUTIONS

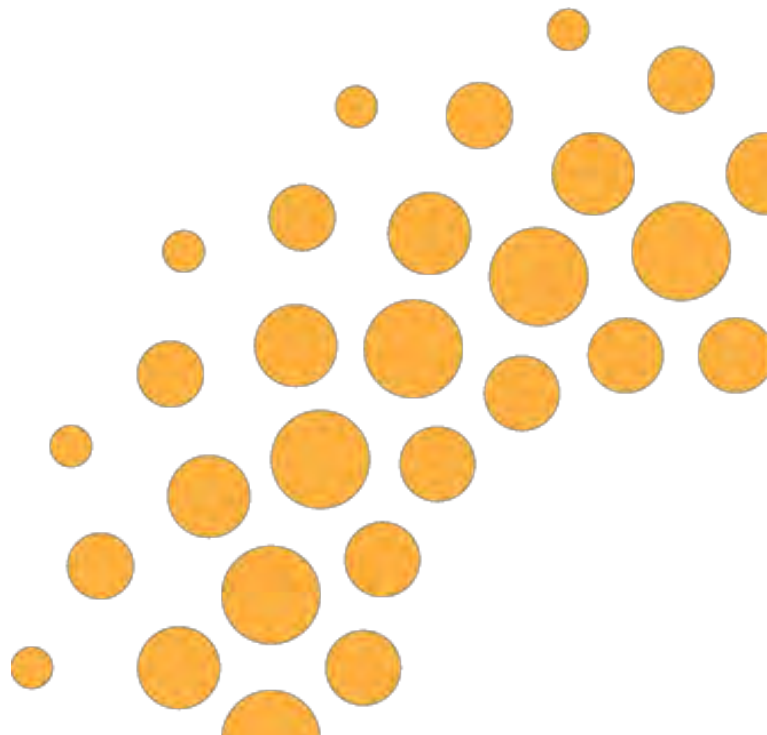
Company Report

Solar Division

1st March 2026

Private & Confidential

Issued under the terms and conditions of the Non-Circumvention, Non-Disclosure Agreement signed between RA-ESG and the recipient.



Welcome to RA-ESG.

Thank you for your interest and recent enquiry regarding the RA-ESG group of companies.

Although we trade in three specific sectors, our focus is always centred on the generation and efficient usage of energy.

- **Solar Energy:** Together with our F-EPC partners, we fund, design, construct, and commission solar farms ranging from 25MW to over 1 GW in the emerging markets. Click [HERE](#).
- **Building Management:** Omni and Decimate building management software manage the energy consumption of large retail, commercial, and industrial buildings and save our 100+ clients approximately 25% on their electricity bills. Click [HERE](#).
- **Mining:** In addition to being high-energy users, mining operations can be extremely inefficient in how they generate and use electricity. Many mines are in regions with abundant sunshine, so solar energy makes a lot of sense. Click [HERE](#).

Overleaf, please find a detailed presentation on RA-ESG Solar Energy operations.

Contents:

1. Confirmation of Joint Venture with Sany Silicon Energy.
2. RA-ESG Overview of core operations.
3. Sany Silicon Energy overview of company operations.
4. Sany Silicon Energy company report.
5. RA-ESG company report.



Visit our website [HERE](#)



Email us [HERE](#)



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Local Offices:

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Harare / Zimbabwe
Port Louis - Mauritius
Dubai - United Arab Emirates



Confirmation of Agreement.

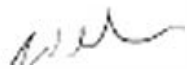
During January and February 2026, the abovementioned parties executed agreements in respect of a joint venture to fund, construct and commission a number of solar facilities in Africa, Mauritius and other territories.

Without divulging the confidential intricacies and structure of each agreement, the parties recognise that various governments, ministries, offtakers and other stakeholders will take comfort from the excellent reputation and financial strength of Sany Silicon Energy Ltd. as RA-ESG's collaborative partner.

Please take this document as written confirmation that upon the provision and acceptance of the suitable **Security Trust Deeds**, Sany Silicon Energy Ltd. stands ready, willing and able to fund and/or construct and commission RA-ESG Solar Projects.

For and on behalf of Sany Silicon Energy (Zhuzhou) Co. Ltd.



Signed by: _____  _____ Designation: Director
Date: 3/16/2026
Email: Silicon_Energy@sany.com.cn

For and on behalf of RA-ESG PLC.



Signed by: _____  _____ Designation: Director
Date: 3/16/2026
Email: Tim.Jonck@RA-ESG.com

“Security Trust Deed” means: The package of security documents, including but not limited to Bank Guarantees, Fixed and Floating Debentures, and Standby Letters of Credit forming a default security trust deed, supplied by a sovereign state, national utility or commercial entity pursuant to its ability to pay for energy it consumes under the terms and conditions of a Power Purchase Agreement. The Security Trust Deed and its various components are to be evaluated and accepted by RA-ESG and Sany Silicon Energy at their entire discretion.

RA-ESG OVERVIEW.

RA-ESG is a specialised investment and engineering consultancy firm focused on high-impact infrastructure and renewable energy projects, primarily within the African market. The company was formed by a consortium of corporate financiers and engineering specialists in response to a surge in applications for sustainable and renewable energy finance.

The company operates at the intersection of traditional engineering and modern sustainable finance, positioning ourselves as a "bridge" for large-scale projects that require both technical expertise and strict adherence to **Environmental, Social, and Governance (ESG)** standards.

RA-ESG is part of a growing class of "impact-first" companies that argue high ESG values lead to better long-term profitability. By securing large-scale renewable mandates, the company provides a vehicle for international investors to fund African infrastructure projects that demonstrate:

- Bankable default security assets,
- Higher level of due diligence and compliance,
- Reduced "greenwashing" risk,
- Higher technical reliability.

Core Operations

Apart from a small number of preliminary project discussions in Central and South America, 80% of project capacity is located in sub-Saharan Africa. Predominantly, the solar projects are government-backed, grid-connected facilities of 100MW or over.

RA-ESG's business model is built on four primary pillars:

- **Renewable Energy Development:** The company is a major player in the African energy transition. As of 2025–2026, RA-ESG has secured over **3.4 GW of solar projects** across the continent. These are typically backed by government-supported Power Purchase Agreements (PPAs), which provide a stable, long-term investment profile.
 - **Core focus:** Securitisation of sustainable energy projects in the emerging markets.
 - **Speciality mining energy division:** The provision of energy in exchange for commodities.
- **ESG Consultancy & Due Diligence:** The company provides technical and commercial studies, reports and due diligence for complex projects. This includes:
 - **Impact Studies:** Executing technical, environmental and social impact assessments.
 - **Risk Management:** Using proprietary tools to align projects with ISO 31000 standards and the UN Sustainable Development Goals (SDGs).
 - **Climate Assessment:** Measuring carbon emissions and developing mitigation strategies for industrial operations.

Directors:

David Viana
Tom Lynch
Darlington Huskisson
Whizzer Ganya

RA-ESG PLC:

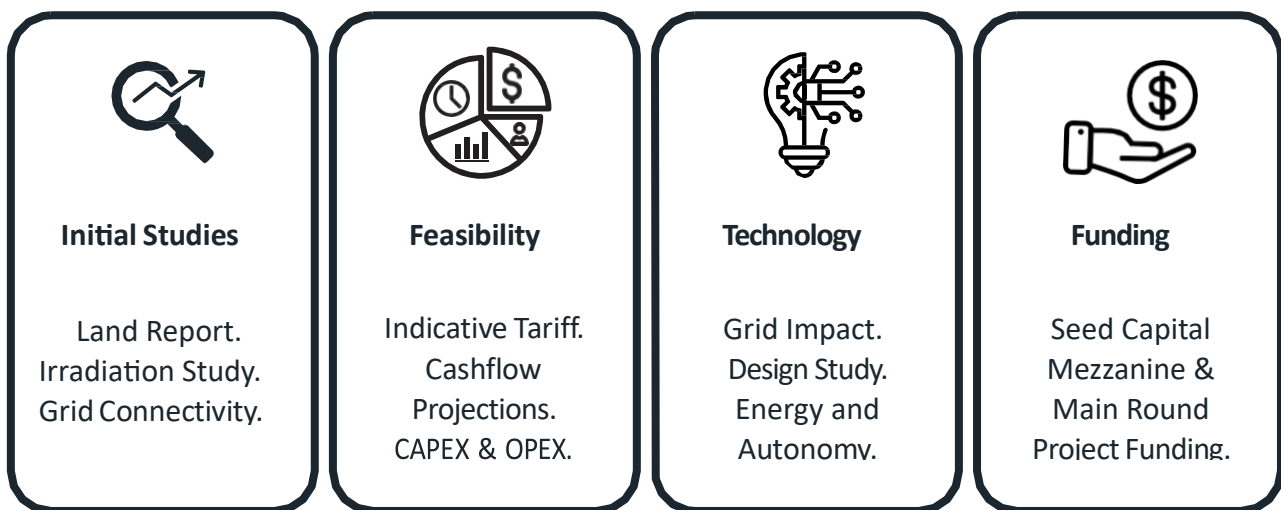
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Local Offices:

Johannesburg / South Africa
Harare / Zimbabwe
Port Louis - Mauritius
Dubai - United Arab Emirates

- **Building Management:** Live digital building management software offering a comprehensive telemetry system to reduce energy consumption by up to 25% per annum in commercial and industrial spaces.
 - 35 key features
 - 100+ buildings under management.
- **Project Development Platform:** RA-ESG's online solar project management application controls each step of the process, from **funding, design, regulatory permissions, engineering, procurement, and construction** to the commissioning phase of each solar project. The process is the same irrespective of whether RA-ESG owns the project or is providing professional services to a third party.

RA-ESG's proprietary software application, together with its knowledge and experience in the sustainable/renewable energy sector, moves projects quickly and efficiently through the process.



Strategic Focus Areas

Efficiency.

Approximately 75% of sustainable energy projects in the emerging markets fail to reach commissioning; whether this is due to mismanagement, corruption, a lack of technical expertise, or simply a shortage of funding is irrelevant. A lack of energy diminishes growth and GDP. Therefore, a robust, disciplined, and compliant control structure is required to maximise the region's energy production.

Funding.

RA-ESG has access to a high number of sustainable and renewable energy funds in diverse jurisdictions. The company's funding partners consider equity, debt and hybrid participation structures, and as such, the likelihood of obtaining project funding is significantly increased. On occasion, RA-ESG will receive offers to buy-out a project in its entirety.

Technical Expertise.

RA-ESG and its in-house technical division* are a professional PV EPC service provider based in Mauritius, leveraging China's expertise and resources. With a combined 20 years of industry experience, we have delivered over 1,000 MW of global grid-connected PV projects, with African projects accounting for 5% of the total to date. All projects have achieved timely delivery and compliant operation.

- **Supply Chain Advantages:** A Joint Venture Partnership has been signed with Sany Silicon Energy Limited, and annual centralised procurement agreements have been executed with China's tier 1 manufacturers, such as LONGi, Jinko (components), Huawei, and Sungrow Power (inverters). The core equipment procurement costs are 10-15% lower than the industry average, enabling "direct supply from original manufacturers + local warehouse reserves" for all categories of equipment, including components and inverters.
- **Technical team:** A 12-member team consisting of "Chinese core + local backbone" was established. The core engineers all have experience in African project design and construction, and are familiar with photovoltaic system optimisation and power grid adaptation technology under a tropical climate.
- **Compliance qualification:** Passed ISO9001 quality system, ISO14001 environmental system and OHSAS18001 occupational health and safety system certification, hold Mauritius "Foreign Investment License" and access qualification for many African countries, no compliance penalty record in previous projects.
- **Engineering and design:** Customised scheme design, based on the irradiation data of the host country (using the NASA meteorological database) and power grid parameters, and the detailed design of civil engineering, structure, and electricity is completed to ensure that the system's power generation efficiency is greatly improved compared with industry benchmarks.
- **Design:** Through PVsyst's and Rated Power professional software for precise performance modelling, power generation simulation calculations are conducted in accordance with the "Design Code for Photovoltaic Power Stations" GB50797-2012, with an error rate controlled within $\pm 3\%$. Additionally, the software can simultaneously complete grid-connection feasibility studies, ensuring that projects comply with local power regulatory standards.
- **Full category procurement and supply chain management:** Full coverage of equipment supply: fully responsible for the procurement of photovoltaic modules, inverters, transformers, photovoltaic brackets, grid-connected cabinets, cables and wires and all kinds of auxiliary materials. All equipment is certified by TUV and UL, and original factory warranty documents are provided. Whole-process quality control: Implement a three-level quality control system of "supplier access (pass rate is only 30%) -> factory inspection (100% sampling) -> port acceptance", and the power deviation of components is controlled within $\pm 2\%$. Efficient logistics guarantee: Relying on the port hub advantage of Mauritius, a regional transshipment warehouse is established to achieve direct delivery from China factories to African project sites within 30 days, reducing logistics costs by 5% compared to the industry

- **Construction and commissioning:** Local construction management: set up a construction team with local workers as the main body and Chinese engineers as the leader, strictly follow international HSE standards and local safety regulations, and the safety accident rate of previous projects is 0.
- **Node quality control:** divide the key nodes such as civil foundation, equipment installation and electrical wiring. Each node shall be jointly inspected and signed by both parties before proceeding, and the qualified rate of the process shall be guaranteed to be 100%.
- **Efficient grid-connected debugging:** Complete the system joint debugging with professional testing equipment to ensure that the success rate of grid connection is 100%, and the power generation rate is not less than 98% during the trial operation for 72 hours after grid connection.
- **Transfer and after-sales support:** Transfer of standardised documents: transfer the completion drawings, equipment manuals, test reports, compliance permits and other core files to realise the traceability of the whole life cycle of the project.
- **Customised training services:** Provide special training for your team's equipment operation and daily maintenance to ensure the quality of training, so as to achieve the passing rate of industry standard examination, not less than 95%.
- **Long-term warranty response:** provide process warranty + original equipment warranty (25 years for components, 10 years for inverters), set up a 24-hour service hotline, and arrive at the site to solve local problems within 48 hours.

Key deliverable

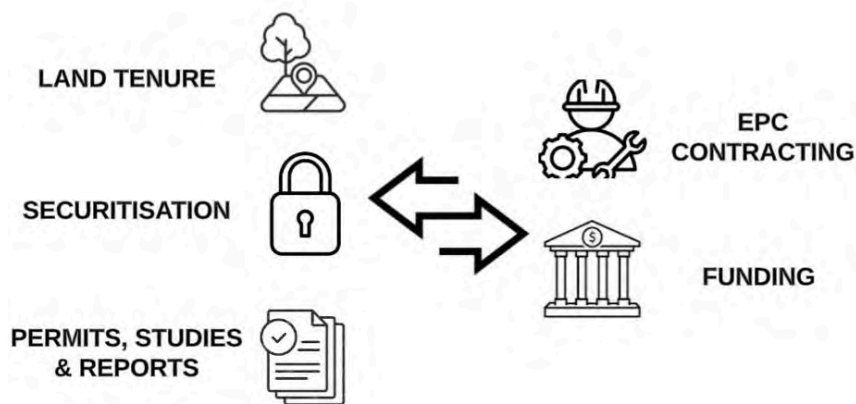
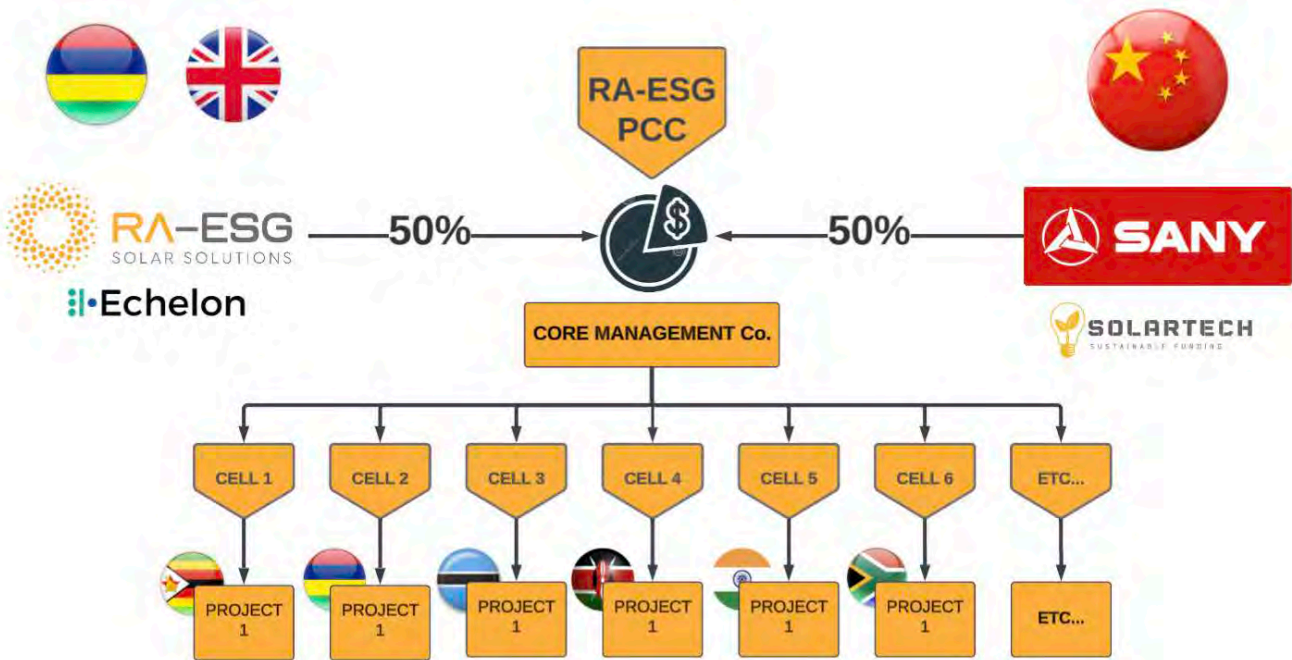
- A photovoltaic power station delivered by RA-ESG is ready for commercial operation upon completion, and the first year's power generation rate shall not be less than 97% of the design value.
- The complete set of compliance documents, covering design approval, equipment certification, land license, grid connection qualification, and other legal documents, to ensure that project operations have no compliance risks.
- Clear performance commitment: the decay rate of components in the first year is less than or equal to 3%, and the cumulative decay rate in 25 years is less than or equal to 20%; the average annual failure rate of inverters is less than or equal to 0.5%, and the power generation difference compensation will be carried out according to the agreement if the standard is not met.
- The defect liability period of up to 25 years covers the core after-sales needs such as equipment failure and process defects, and the maintenance and replacement at zero cost during the warranty period.

Group Structure:

The "RA-Group" consists of a number of companies owned and incorporated in different jurisdictions:

- RA-ESG PLC is based in the United Kingdom (“RA-ESG UK”)
- RA-ESG Energy Inc. is based in Delaware, United States (“RA-ESG USA”)
- RA-ESG Solar Solutions (Pvt) Ltd. is based in Harare, Zimbabwe (“RA-ESG ZIM”)
- RA-ESG Solar (Mauritius) Ltd. is based in Mauritius (“RA-ESG MUR”)
- Echelon Consultancy Ltd. is based in Mauritius (“Echelon MUR”)
- *Solar Tech Innovation Africa Co. Ltd. is based in Mauritius (“Solar Tech MUR”)

Due to tax planning, the UK economic outlook, and the geographic location of 90% of our projects, the group is currently deregistering in the UK and incorporating a Protected Cell Company in a tax-friendly jurisdiction. The new entity is to be named RA-ESG PCC.



The Sany Group comprises a number of subsidiaries that trade in heavy industrial plant, sustainable energy, and other allied sectors.

Sany Group fact sheet:

- 16 global bases outside of China,
- 7 industrial bases in China,
- 47 factories
- 912 warehouses
- 900 service sites

- **± USD 11 billion annual revenue.**

- **± USD 3 billion Asia and Australia annual revenue.**

- **± USD 0.75 billion African annual revenue (44% increase year-on-year).**

- **Group Market Cap. ± USD 203 billion**

Sany is a global leader in construction machinery and the world's third-largest heavy equipment manufacturer; it was the first Chinese company in its industry to enter FT Global 500, and the Forbes Global 2,000 ranking

SANY Group has embarked on new energy transformation as its third entrepreneurial endeavour. In 2022, it established the SANY Silicon Energy Division, focusing on the independent R&D and manufacturing of ingots, wafers, cells, modules, and PV power stations. Leveraging its profound strengths in the comprehensive industrial landscape encompassing wind, solar, storage, and hydrogen, SANY Silicon Energy has demonstrated remarkable capabilities in providing integrated energy solutions across various sectors, including Mining, Transportation, Manufacturing, and Industrial Parks. With extensive experience in developing and constructing GW-scale power stations, the division offers customers integrated services that cover the entire project lifecycle, from project planning through to operation and maintenance management. By deeply integrating source-grid-load-storage technologies, SANY Silicon Energy customizes green energy solutions that facilitate the efficient utilization of renewable energy.

26.6.2024 SANY Silicon Energy officially commenced construction of a 10MW solar power plant in Zimbabwe. The project, undertaken by Runtu Mining Company, marks SANY's first solar project in Zimbabwe—and the first in Africa to adopt the innovative "EP+F" model, which integrates engineering, procurement, and financing into a customized solution tailored to customers' financial needs. SANY Silicon Energy now looks to build on that foundation and expand into sub-Saharan Africa.

The project will deploy SANY's independently developed 710 high-efficiency photovoltaic modules, paired with advanced inverters and high-strength mounting systems. With a total installed capacity of 10MW and a fast-tracked construction plan, the plant is scheduled for grid connection by the end of 2025. Once operational, it is expected to generate 18 million kilowatt-hours annually, greatly easing Zimbabwe's power shortage, supporting local industries, and contributing to low-carbon energy transformation across the region.

As the debut of SANY Silicon Energy's "EP+F" business model, the project offers a replicable framework for future international renewable energy collaborations. By significantly

reducing the financial burdens for customers, the model enhances the accessibility and feasibility of clean energy adoption in emerging markets. Runtu Mining's Chairman expressed confidence in future cooperation with SANY in broader areas, including microgrids, electric trucks, and EV charging infrastructure.

This milestone project reflects SANY's strong commitment to the global dual-carbon agenda and its expanding role in international clean energy development. Upholding high standards in quality and efficiency, SANY will ensure the project is delivered on schedule and contributes lasting value to Zimbabwe's energy landscape.

Looking forward, SANY will continue to drive innovation, collaborate with global partners, and accelerate the transition to a sustainable, green energy future.

We include a few links to highlight Sany's capabilities and excellent record in the energy sector.

<https://www.sanyglobal.com/>

<https://en-siliconenergy.sany.com.cn/>

https://en-siliconenergy.sany.com.cn/news/details_433_615.html

https://en-siliconenergy.sany.com.cn/news/details_433_616.html

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SANY Group Co., Ltd., China

QUALITY CHANGES THE WORLD



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QUALITY CHANGES THE WORLD

Leadership



Liang Wengen
Principal Consultant & The Chairman
of the Supervisory Board

Board of Directors



Liang Wengen



Tang Xiuguo



Xiang Wenbo



Liang Zaizhong



Yi Xiaogang



Zhou Fugui



Yuan Jinhua



Yu Hongfu



Liang Linhe



Dai Qinghua



Huang Jianlong



Qi Jian

Human Beings Are Great for Their Dreams

I enjoy watching both sunsets and sunrises. I'm always moved by the splendor, beauty and sense of accomplishment of each day's colorful sunset also by the feeling of renewal and promise brought on by each morning's sunrise. In the same way, I have great dreams for my company, SANY. As a powerful inner driver, these dreams push me to succeed, to excel. I believe that my hard work can contribute to the success of SANY in the world's arena.

Because of risks and challenges, starting a business takes courages. But in less than two decades, SANY has grown from its humble beginnings to a leader in construction machinery manufacturing. The SANY brand and its products are now recognized as high quality. Encouraged by this success, I have become even more determined to fulfill the monumental

mission of expanding our product lines and improving our quality even more. We will be truly successful only when SANY's products are superior to those of our strongest competitors.

SANY's goal is to reshape China's construction machinery industry with advanced SANY technology, to build products recognized for their quality worldwide while continuously improving them through innovation, to exceed our customers' expectations with unparalleled quality and services, then finally to make sure that Made in China means top quality to the rest of the world.

Human beings are great for their dreams. SANY is living its dreams step by step.

About

SANY Group

Founded in 1989, SANY Group is a multinational company that is pursuing the vision of "building first-class enterprises, fostering first-class talents, and making first-class contributions to society". With the strategy of "Globalization, Digitalization, Decarbonization", SANY has been striving to build a global brand and become a leading equipment manufacturer in the industry.

With three listed companies, including SANY Heavy Industry, SANY International, and SANY Renewable Energy, SANY's core businesses are equipment manufacturing for engineering machinery, covering a full product portfolio, including concrete machinery, earthmoving machinery, hoisting machinery, road machinery, piling machinery, port machinery, mining machinery, petroleum drilling machinery, etc. Among these, SANY's concrete machinery has been occupying the largest market shares globally, and the acquisition of Putzmeister in 2012 further strengthened the market position. In 2020, SANY's excavators won the global sales champion for the first time. In addition, the large tonnage crane, crawler crane, piling machinery, mobile port machinery, coal mining machinery, and so on are all leading in sales in China.

Besides, SANY is also striving to enter the new energy industry, including wind power, hydrogen energy, photovoltaic power, and energy storage. SANY also vigorously promotes the electrification of existing products, contributing to the emission reduction goals of the United Nations.

In 2024, with a sales network covering over 180 countries and regions, SANY's overseas sales set a record high, exceeding 8.21 billion US dollars, accounting for 45% of the group's total sales. In 2024, SANY Group makes its debut on the "2024 Forbes China Go-International Flagship Brands Top 30" list. At the same time, the GYBrand Global Brand Research Institute included SANY in the "2025 World's Top 500 Brands List" for the first time, listing at the 468th position as the only engineering machinery company on the list.

Sticking to our mission, "Quality Changes the World", SANY invests about 5% of its annual revenue in R&D. By the end of 2024, SANY has applied for a total of 32,530 patents, of which 16,264 have been awarded.

SANY remains at the forefront of transformative change, harnessing the power of technology to drive progress and shape a brighter future for generations to come. As we forge ahead, SANY is committed to delivering superior products and solutions that empower our customers and communities worldwide. Together, we will continue to build, innovate, and lead the way towards a better tomorrow.



Why We Are Called "SANY"?

SANY, the literal meaning of which is "three ones" in Chinese, derives its name from the English pronunciation of the company's Chinese name (三一 Sānyī). The name represents our company's vision to achieve three primary objectives: **to build first-class enterprises, to foster first-class talents, and to make first-class contributions to society.**

The company's logo visually embodies this vision, featuring three interlinked numeral ones, reflecting the stability of the manufacturing industry. The centripetal symbol represents the united efforts of all SANY members in pursuing their shared dream.

SANY

Entrepreneurial Journey

In late 1985, Liang Wengen, Tang Xiuguo, Yuan Jinhua and Mao Zhongwu left their positions at state-owned enterprises to pursue an entrepreneurial venture in Maotang, Lianyuan. In the beginning, they were faced with a myriad of challenges including the industrial and economic climate of the nation. Through perseverance, they overcame these obstacles and successfully established the Hunan Lianyuan Welding Material Factory.

Over the years, the factory experienced significant growth, and by 1991, it had become the largest private enterprise in Loudi, boasting a production value exceeding 15 million USD. After conducting extensive research for over two years, Liang Wengen and Xiang Wenbo devised a dual-entry strategy to expand their business into the central city of Changsha and

the construction machinery industry. Consequently, SANY Heavy Industry was officially founded in Changsha in 1994.

From independently developing their first trailer pump to making a breakthrough in the excavator market and ultimately becoming a titan in the construction machinery sector and a front runner in the new energy industry, SANY's journey from humble beginnings to continual breakthrough innovations has fundamentally altered the global perception of "Made in China".

Today, SANY's aspirations extend beyond being the global leader in sales. We are dedicated to establishing ourselves as a renowned enterprise, a world-class brand, and a trailblazer in the fusion of industrial and digital technologies.



1989

Starting from scratch

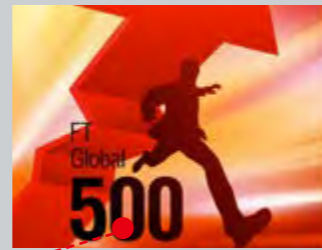
Liang Wengen, Tang Xiuguo, Mao Zhongwu and Yuan Jinhua founded Hunan Lianyuan Welding Material Factory in Lianyuan, Hunan province.



2003

A listed company

SANY Heavy Industry was successfully listed on the Shanghai Stock Exchange. SANY Heavy Machinery Co., Ltd. was founded, focusing on excavators and petroleum drilling machinery.



2012

Putzmeister made a member of SANY Group

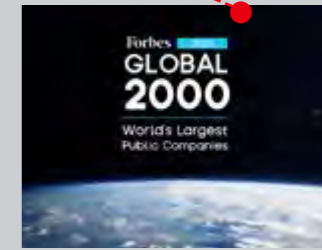
SANY acquired the leading German concrete machinery manufacturer Putzmeister.



2021

Ranking 468th in Forbes Global 2000

SANY Heavy Industry ranked first among heavy equipment manufacturers in China and second in the world.



1994

Advancing into heavy machinery industry

Hunan Lianyuan Welding Material Factory was officially renamed to Hunan SANY Group Co., Ltd. and its headquarters officially moved to Changsha.

2011

Recognized in a leading publication

SANY Heavy Industry entered the FT Global 500 ranking of the world's largest companies.

2020

Sales revenue exceeding 15 billion USD

SANY Heavy Industry became the first heavy equipment manufacturer with sales revenue exceeding 15 billion USD in China. SANY sold 98,705 excavators in 2020, accounting for 15% of the total volume for excavator sales in the global market.

2024

Go-International Flagship Brands Top 30

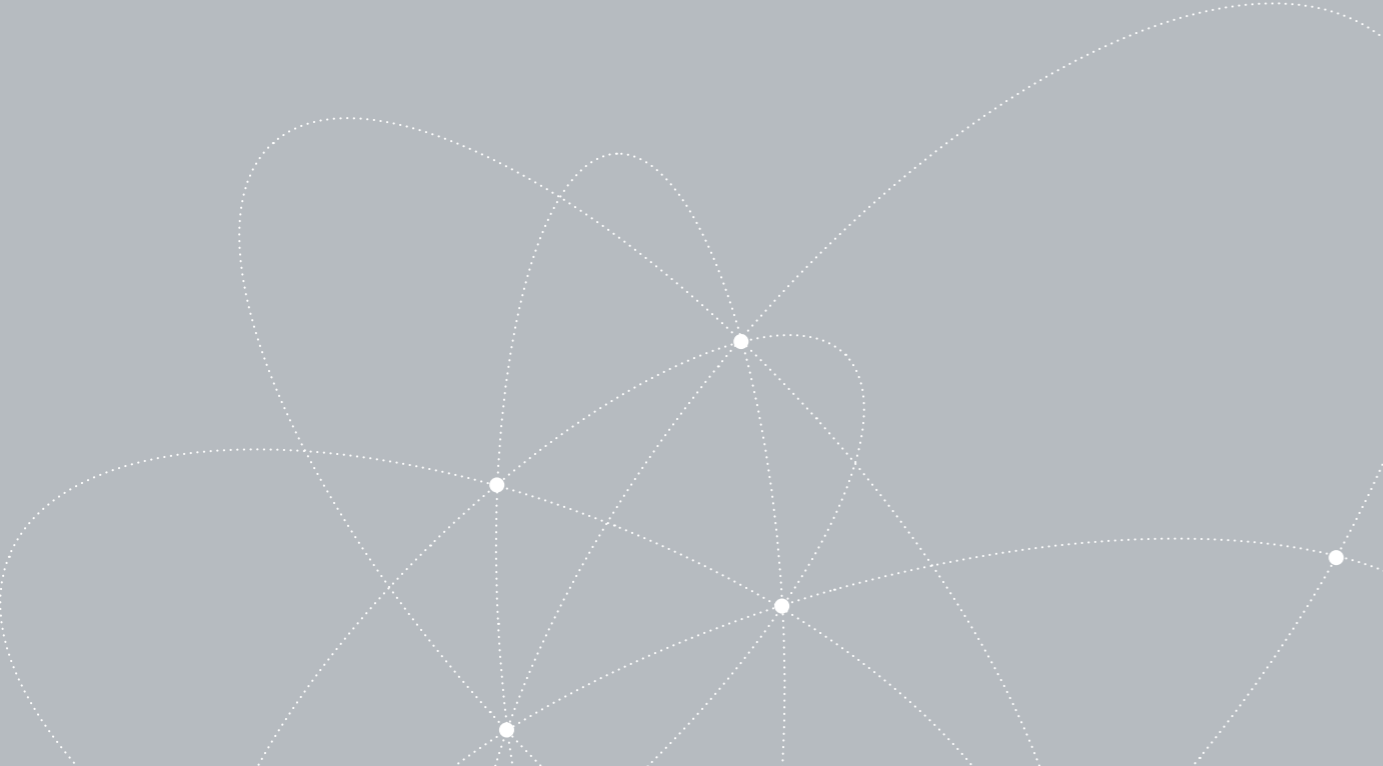
The list of the "2024 Forbes China Go-International Series Selection" included SANY in the "Go-International Flagship Brands Top 30" for the first time.

INDUSTRIAL LAYOUT



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QUALITY CHANGES THE WORLD

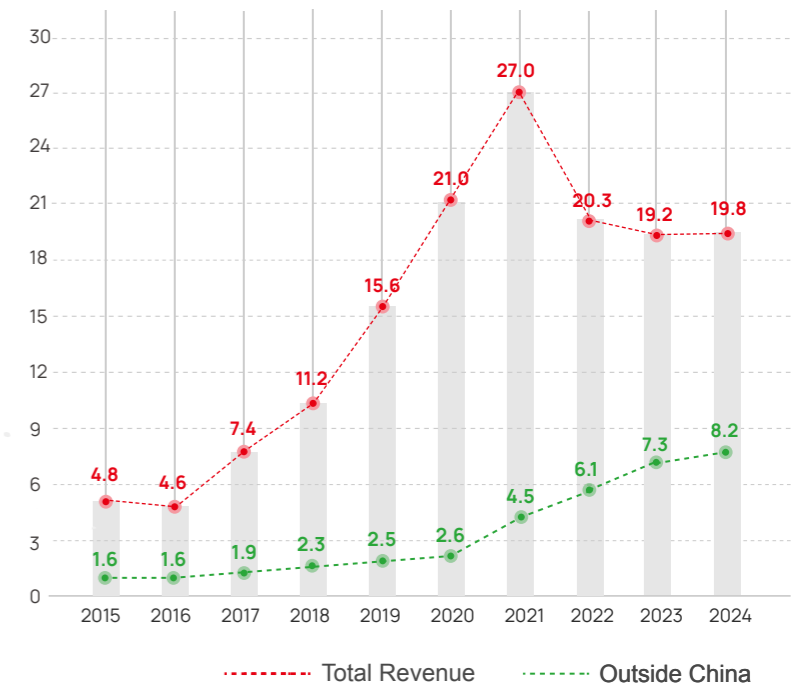


INDUSTRIAL LAYOUT

As a leading manufacturer of construction and mining machinery, renewable energy system, and cloud service provider, SANY expands international footprints with 16 industrial bases outside China and 7 industrial clusters in China, supporting our customers to realize their self-worth.



Sales Revenue of SANY Group from 2015 to 2024
(in billion US dollars)



- Headquarters
- R&D Center
- Sales Region Outside China
- Factory of Putzmeister

16
Industrial Bases
Outside China

7
Industrial Clusters
in China

47
Lighthouse Factories
Worldwide

5
R&D Centers

912
Parts Warehouses
Outside China

900+
Service Sites
Outside China

89%
Employee Localization
Rate Outside China

KARAWANG, INDONESIA

Export China's Intelligent Manufacturing

Located in the KIM Industrial Park in Karawang, SANY's Indonesia factory spans approximately 100,000 square meters and has an annual capacity of 3,000 units. As SANY's first lighthouse factory outside China, the factory is also the first overseas manufacturing base of China's construction machinery built in full accordance with Industry 4.0 standards and the first systematic overseas export case of China's intelligent manufacturing of construction machinery. On September 12, 2023, Phase II of the Indonesia Industrial Park held a groundbreaking ceremony.



PEACHTREE, USA

Made for America, More than Machines

Established in 2007, SANY America, located in Peachtree, Georgia, and covering an area of 37,000 square meters, mainly engages in pump trucks, hydraulic excavators, crawler cranes, and rough-terrain cranes. SANY America not only provides high-quality machinery to the market but also practices its social responsibility.



BEDBURG, GERMANY

Men & Machines

Versed in design and engineering, SANY Europe was inaugurated in Bedburg, Germany, in 2011. SANY Europe offers a wide range of CE compliant products, including hydraulic excavators, mobile port machinery (reach stacker, empty container handler, heavy duty forklift), rotary drilling rigs and crawler cranes for the European market.



PUNE, INDIA

Incredible Industrial Implementation

Established in 2002, SANY India has emerged as a key player in the construction equipment industry, offering the widest range of machinery across India and South Asia. With an investment of over INR 1,000 crores since 2012, SANY India has developed a world-class manufacturing facility in Chakan, Pune, spread across 90 acres. This facility integrates R&D, quality inspection, testing, and service infrastructure, ensuring superior product development. To meet increasing demand, SANY India has recently expanded its manufacturing capacity with a new facility.



PUTZMEISTER

One Team, Dual Brands

Famous for its nickname "Elephant", Putzmeister joined SANY Group in 2012 and has continued its legendary story together with SANY's PC. In the first picture, Putzmeister is supporting the most challenging project: renovation of a bridge across the Hoover Dam, USA.



SHANGHAI

East Production Center

The Shanghai-centered cluster, including industrial parks in Lingang, Kunshan, Changshu, Nantong, Rudong, and Huzhou, is home to SANY's heavy machinery BG and its subsidiary SANY Palfinger. SANY's excavators, loaders, crawler cranes, loader cranes, and environmental protection equipment are mainly produced here.



BEIJING

Diverse Footprint in the Capital

Beijing, the capital of China, is where SANY Heavy Industry's headquarters and SANY Renewable Energy are located. The Nankou Industrial Park is home to the Precast Concrete Factory of the SANY Construction Industry, SANY's Piling Machinery Lighthouse Factory, and SANY Renewable Energy Factory, mainly producing piling machinery, precast concrete, and wind power equipment.



CHANGSHA

A Beacon of Success

As a place where SANY achieved great success, Changsha is also where SANY Group's headquarters is located, including Xingsha Industrial Park, Smart Heavy-duty Industrial Park, and industrial parks in surrounding cities like Ningxiang, Yiyang, Changde, Loudi, and Shaoyang. SANY's concrete machinery, road machinery, hoisting machinery, heavy-duty trucks and fire-fighting equipment are mainly produced here. Nowadays, production facilities are highly automated with robotic arms and computerized conveyors.



XI'AN

A Catalyst for Progress

The intelligent manufacturing industrial park in Xi'an, which mainly produces off-highway mining trucks and hydraulic supports, rolled off the first equipment in March 2023. The factory plans to produce 12,000 sets of hydraulic supports and 6,000 wide-body dump trucks annually with an annual output value of 1.43 billion USD, which is of great significance to enhance the production capacity of China's wide-body dump trucks and promote the development of the mining industry.



SHENYANG

Mining Trip in the Old Industrial Base

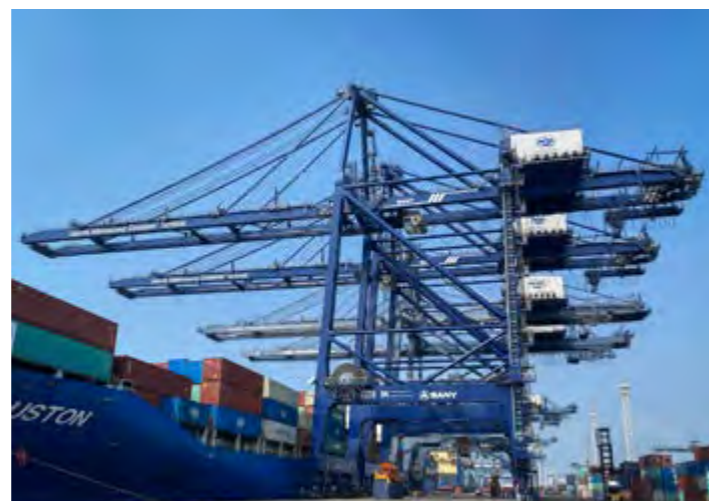
Situated in Northeastern China, Shenyang is home to SANY International Development Ltd., a subsidiary of SANY Group specializing in cutting-edge mining machinery and coal mining equipment. In 2009, SANY International Development Ltd. was listed on the Hong Kong Stock Exchange, becoming the first coal mining machinery manufacturer listed in Hong Kong. From computer-aided design and rapid prototyping to comprehensive test tracks, technologies are being applied to make our equipment solid.



ZHUHAI

Port City, Port Machinery

SANY Zhuhai Industrial Park, which opened in 2015, covers an area of 2,500 acres with a 1-kilometer coastline. The park has built a total of 300,000 square meters of factory space, including a 500,000-square-meter assembly base for marine engineering equipment, and has an annual production capacity valued at 2.1 billion USD.



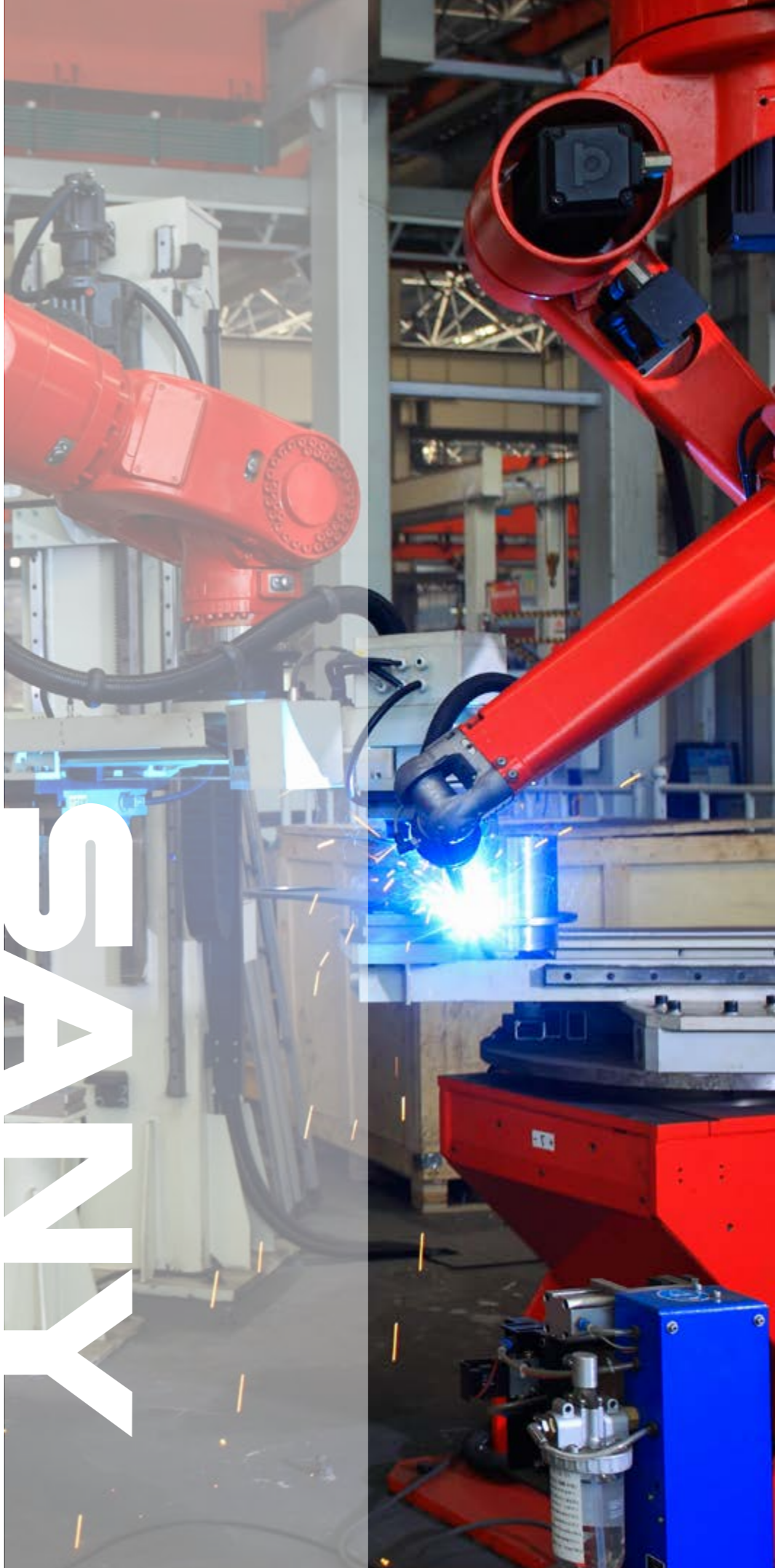
XINJIANG

Wild West, Golden Opportunities

SANY Northwest industrial complex is one of the strategic facilities that strengthens the connection of China and Central Asia. The complex is supplying northwest China, Central Asia, and Russia with a comprehensive product portfolio for construction and mining.

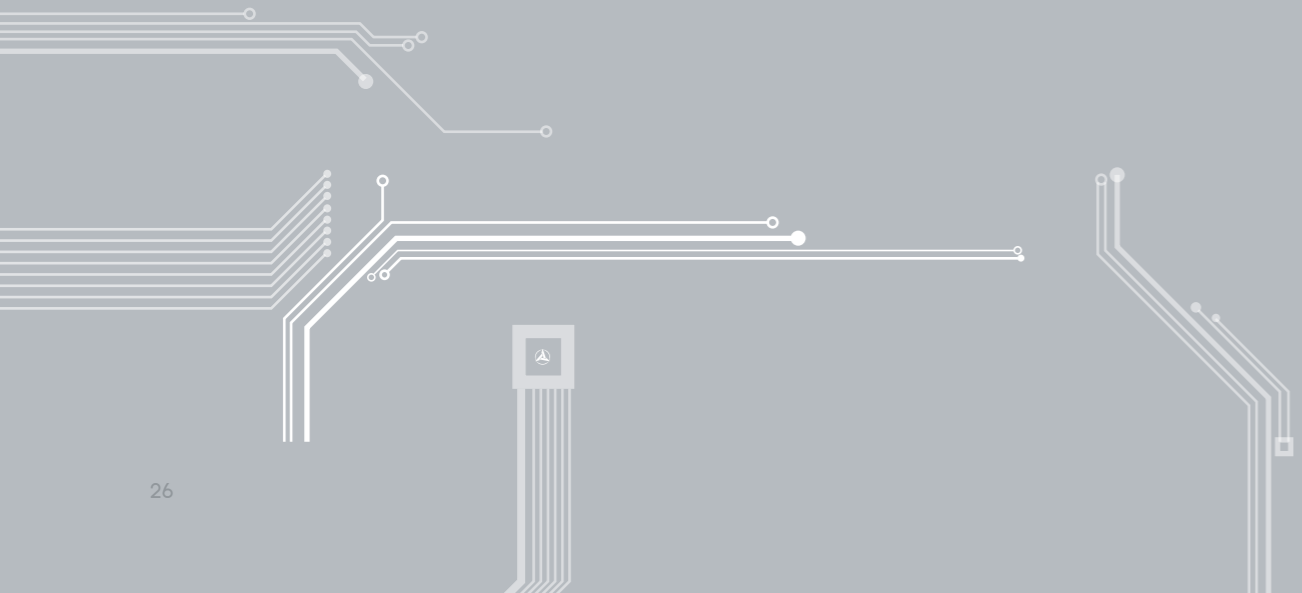


INTELLIGENT MANUFACTURING & DIGITALIZATION



SANY

QUALITY CHANGES THE WORLD



THE INDUSTRIAL ECOSYSTEM

“T2E”: “Three Transformations” Strategy Builds the Ecosystem

- “Hard Technology”
- Globalization, Digitalization, Decarbonization
- SANY Industrial Vocational and Technical College, Finance

Vertical: Intelligent Manufacturing Resources

- Material, Structure, Transmission, Control, Networking
- R&D, Supply, Production, Sales, Service
- ...

Horizontal: Digital Platform

- ROOTCLOUD
- iSANY
- ...

Wind Power and New Energy Ecosystem

SANY Renewable Energy (688349)

Wind Energy, Photovoltaic Power, Hydrogen Energy, Energy Storage

Micro-grid Solution



Education

Engineering and Construction Ecosystem

SANY Heavy Industry (600031)

Earthmoving, Pilling, Pumping, Lifting, Emergency Equipment

Intelligent Construction



Mining and Logistics Ecosystem

SANY International (00631)

Mining, Port, Petroleum, Sanitation

Intelligent Mining & Logistic



Finance

20+ Industry Cloud Platforms

80+ Equipment Types

1 Million+ Machines

20 Million+ PcTeam Components

60+ Countries

5,400+ Industrial Applications

iSANY + IIOT “Excavator Index”

Sales & Service

- 600+ dealers worldwide
- 180+ sales regions & contries
- Over 100 billion yuan in sales revenue

Production

- 50+ Lighthouse Factories worldwide
- Over 2,000 hectares of industrial land globally
- Over 7 million m² of factory space worldwide
- 40+ global industrial parks

SMART
MANUFACTURING
RESOURCE

R&D

- 10,000+ R&D personnel
- 10,000+ patents
- 100+ self-developed industrial software

Supply

- 3,000+ strategic suppliers
- 18,000+ authorized suppliers
- Over 120 billion yuan in annual procurement



LIGHTHOUSE FACTORY

Currently, SANY has 47 “Lighthouse Factories” worldwide, three of which - the SANY Pilling Machinery Factory in Beijing, the No. 18 Factory in Changsha, and the Blade Factory in Shaoshan - are certified by the Davos World Economic Forum (WEF) and the Shaoshan Blade Factory is the world’s first certified wind power “Lighthouse Factory”.



In 2021, the Davos World Economic Forum (WEF) published the latest batch of "Lighthouse Factories" in the global manufacturing industry and SANY's piling machinery factory in Beijing made the list, becoming the first certified lighthouse factory among heavy equipment manufacturers.

Facing the ever-changing and increasingly complex demands of the construction machinery market, SANY applied up-to-date technologies such as human-machine collaboration, automation, AI and IoT technologies, boosting productivity by 85% while reducing production lead time by 77% (from 30 to 7 days). The digital transformation of SANY prompted the launch of a new subsidiary company, SANY Robot Technology Co., Ltd., propelling SANY to become the pioneer of intelligent manufacturing.

In 2022, the No. 18 Factory in Changsha was included in the new list of lighthouse factory in the global manufacturing sector as the most advanced and smartest factory in the industry. Relying on the ROOTCLOUD, the factory's 9 major manufacturing processes, and 32 typical production scenarios are fully automated. As a result, the site expands production capacity by 123%, improves labor productivity by 98%, and reduces unit manufacturing cost by 29%.

On October 8, 2024, WEF unveiled its latest list of "Lighthouse Factories", in which SANY Renewable Energy's (SANY R.E.) blade factory in Shaoshan, China made the list, becoming the world's first wind power "Lighthouse Factory". The factory owns the industry's first digital meta platform. With only an iPad, managers can monitor real-time operations and production data of the whole factory. With technologies like robot and laser guidance, the factory shorten the production time for a single 100-meter blade from over 40 hours to 25 hours.



PRODUCT PORTFOLIO



QUALITY CHANGES THE WORLD

Product Milestones

1994

The rollout of the first SANY trailer pump ended China's dependence on imported units.

2000

SANY produced the world's first fully hydraulic motor grader.

2004

SANY developed the three-gradation trailer pump successfully.

2006

SANY successfully entered the port machinery market with its RSC45-5M Container Reach Stacker.

2008

A fully hydraulic rotary drilling rig of the largest tonnage in Asia and the most powerful whole-rock roadheader in Asia rolled off the line at SANY.

2010

The SANY 1,200-ton all-terrain crane SAC12000, the largest in China, was manufactured.

2013

SANY's A8 Series Concrete Batching Plant integrated top technology of China and Germany, which led the first "Industrial Revolution" in the construction concrete industry.

2015

SANY successfully launched the first 48-meter long-span water tower fire truck, entering the field of firefighting equipment.

2018

SANY Heavy Truck was born, launching the first heavy truck of which 12,000 units were sold in the first year through online sales alone.

2020

SANY produced the SCC40000A, a 4,000-ton capacity crawler crane with a max lifting moment of 90,000 t·m.

SANY released the 125-t large excavator SY1250H.

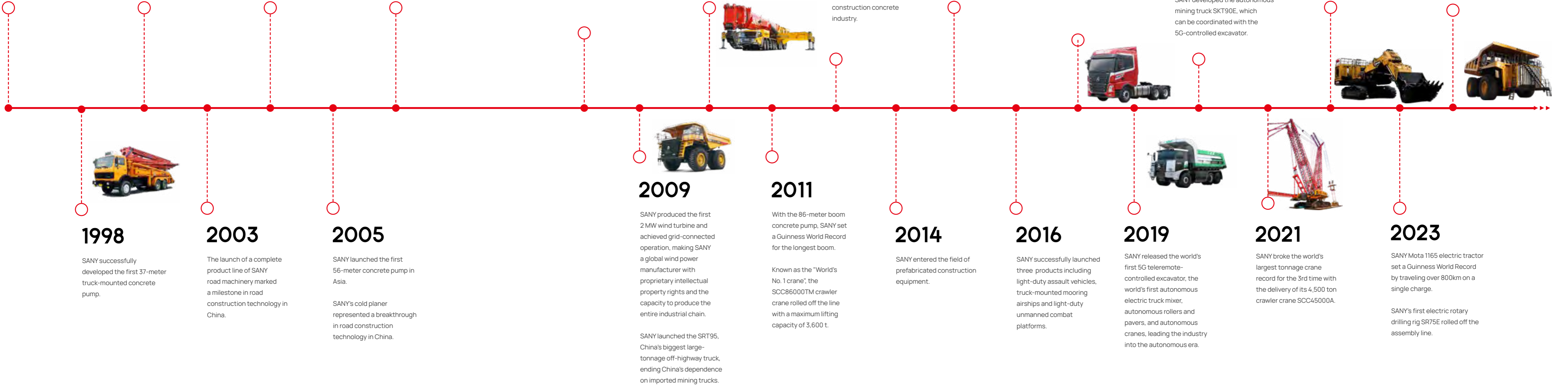
SANY developed the autonomous mining truck SKT90E, which can be coordinated with the 5G-controlled excavator.

2022

SANY's first 300-ton electric-drive front shovel, SY2600E and 200-ton electric-drive excavator SY2000H officially rolled off the production line.

2024

SANY's first 300-ton off-highway mining truck rolled off the production line, marking a new milestone in mining equipment.



1998

SANY successfully developed the first 37-meter truck-mounted concrete pump.

2003

The launch of a complete product line of SANY road machinery marked a milestone in road construction technology in China.

2005

SANY launched the first 56-meter concrete pump in Asia.

SANY's cold planer represented a breakthrough in road construction technology in China.

2009

SANY produced the first 2 MW wind turbine and achieved grid-connected operation, making SANY a global wind power manufacturer with proprietary intellectual property rights and the capacity to produce the entire industrial chain.

SANY launched the SRT95, China's biggest large-tonnage off-highway truck, ending China's dependence on imported mining trucks.

2011

With the 86-meter boom concrete pump, SANY set a Guinness World Record for the longest boom.

Known as the "World's No. 1 crane", the SCC86000TM crawler crane rolled off the line with a maximum lifting capacity of 3,600 t.

2014

SANY entered the field of prefabricated construction equipment.

2016

SANY successfully launched three products including light-duty assault vehicles, truck-mounted mooring airships and light-duty unmanned combat platforms.

2019

SANY released the world's first 5G teleremote-controlled excavator, the world's first autonomous electric truck mixer, autonomous rollers and pavers, and autonomous cranes, leading the industry into the autonomous era.

2021

SANY broke the world's largest tonnage crane record for the 3rd time with the delivery of its 4,500 ton crawler crane SCC45000A.

2023

SANY Mota 1165 electric tractor set a Guinness World Record by traveling over 800km on a single charge.

SANY's first electric rotary drilling rig SR75E rolled off the assembly line.

CONCRETE MACHINERY



SANY is the world's largest manufacturer of concrete machinery including concrete pumps, trailer pumps, line pumps, truck mixers, batching plants, and more. The sales and manufacturing volume of concrete pumps have been ranked No. 1 in the world. The sales volume of concrete batching plants has been ranked No. 1 globally for 11 consecutive years.

SANY's market share of precast concrete equipment remains the largest in China.

With more than 20 years of technological innovation, SANY concrete machinery continually sets new Guinness World Records. Over 80% of skyscrapers worldwide over 500 meters in height are pumped by SANY.



Truck-mounted Concrete Pump



Truck Mixer



Line Pump



Trailer Pump



Placing Boom



Batching Plant



Shotcrete

ROAD MACHINERY



SANY Road Machinery provides complete equipment and a series of solutions for road construction with sales covering over 130 countries and regions. The market share of fully hydraulic rollers, asphalt batching plants, and pavers ranks No. 1 in China. With 3 R&D bases and 4 local factories worldwide, SANY Road Machinery is striving to provide smarter and greener products.



EXCAVATOR



SANY has developed hydraulic excavators with a product range from 1.6t to 400t. Besides the crawler excavators, SANY also manufactures a full series of earthmoving machinery including wheeled excavators, long-reach excavators, forestry excavators, demolition machines, as well as electric machines covering electric excavators.



LOADER



SANY Loader, with meticulous engineering, offers a wide range of loading equipment for diverse applications. The portfolio includes wheel loaders, backhoe loaders, skid steer loaders, and aerial work platforms, all designed for high efficiency and intelligent operation.

SANY Loader is dedicated to sustainable development and lead in introducing electric-powered options to ensure both environmental friendliness and outstanding performance.



PILING MACHINERY



One out of every three rotary drilling rigs in China is manufactured by SANY. SANY has set the record for the deepest offshore drilling with its 149-m rotary drilling rigs, and has successfully met the need for large-scale and ultra-deep pile foundation construction that the Chinese rotary drilling equipment industry lacks. Selling to over 60 countries and regions, SANY's piling machinery accounts for 60% of the export market share with the number of overseas equipment exceeding 2,500 units.

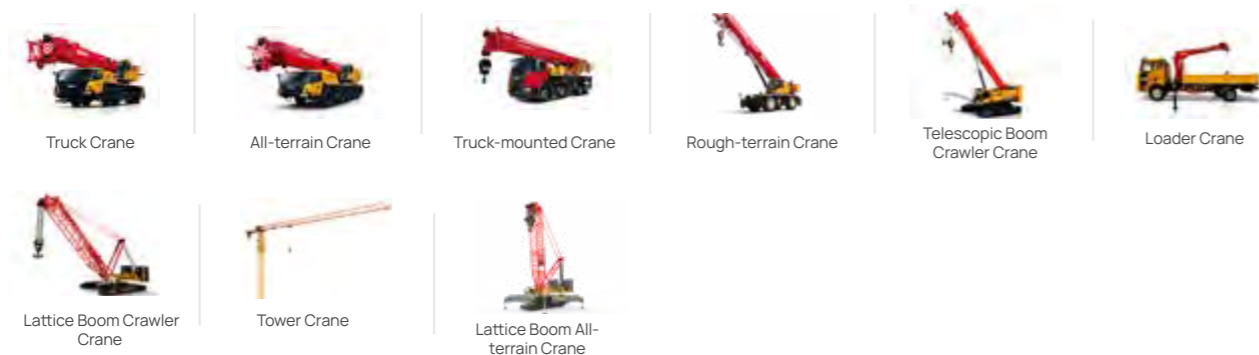


HOISTING MACHINERY



SANY Crane specializes in the development and manufacturing of high-end cranes ranging from 8 to 4,500 tons, including truck cranes, all-terrain cranes, rough terrain cranes, truck-mounted cranes, industrial cranes, lattice boom crawler cranes, telescoping boom crawler cranes and tower cranes, as well

as electric machines, such as electric cranes and mobile energy storage. In 2024, the world's first 9-axle 4,000t all-terrain crane SAC40000T rolled off the assembly line and was successfully delivered.



DUMP TRUCK



SANY started the international dump truck business in 2018, and the global sales volume reached 3,681 units in 2024, which is the fastest growth rate in the industry. As the pioneer and practitioner of new energy dump trucks SANY is committed to building the world's leading brand of new energy dump trucks and providing customized and scenario-

based full cycle solutions with three major product platforms - standard load, composite, and heavy-duty and four major technological routes -pure electricity, hybrid, hydrogen, and diesel. In 2024, the sales revenue reached 251 million USD, ranking No. 1 in the Chinese new energy dump truck market.



SEMI-TRAILER TRACTOR



SANY Truck is a pioneer of Digital and Low-carbon transformation in SANY Group. In 2018, the first batch of 500 units sold out in 53 seconds, leading the way in the internet sales of industrial products and earning the title of "Internet Truck First Brand." In 2020, SANY Truck ranked sixth in the semi-trailer tractor industry. In 2021, SANY Truck took the lead in transforming and fully invested in the development of pure electric and hydrogen fuel cell heavy trucks, reshaping the industry with new energy

solutions. In 2023, the SANY Mota 1165 pure electric heavy truck set the Guinness World Record for the "longest distance on a single charge" at 817.5 kilometers, demonstrating leading global technology. After years of development, the SANY New Energy Truck has been the domestic sales champion for four consecutive years, earning the title of "Domestic New Energy Heavy Truck Number One Brand." With a valuation of 14 billion RMB, it was included in the Hurun Global Unicorn List, ranking 504th.



Semi-trailer Tractor



Hydrogen Semi-trailer Tractor



Electric Semi-trailer Tractor

MINING TRUCK



SANY has four major series of mining trucks with load capacities from 40t to 300t. In 2020, the 60t pure electric off-highway mining truck SKT90E was launched, which was successfully applied to the harsh working conditions at an altitude of 5,000 meters. In 2021, the 100t SKT105S was off the production line, filling the gap of large-tonnage wide-body vehicles in China. Currently, SANY has fuel, hybrid, pure electric, and autonomous mining trucks selling worldwide. In 2023, SANY started to

partner with Rosebel Gold Mines, a subsidiary of Zijin Mining and has delivered batches of SET150S electric drive trucks to Suriname, marking a significant milestone in the mining history. In July 2024, SANY successfully produced the SET320S diesel electric power off-highway mining truck, which has a maximum load capacity of 300 tons and is currently the largest load capacity hybrid mining car developed by SANY.



Diesel Electric Mining Truck



Rigid Mining Truck



Off-highway Mining Truck



Electric Off-highway Mining



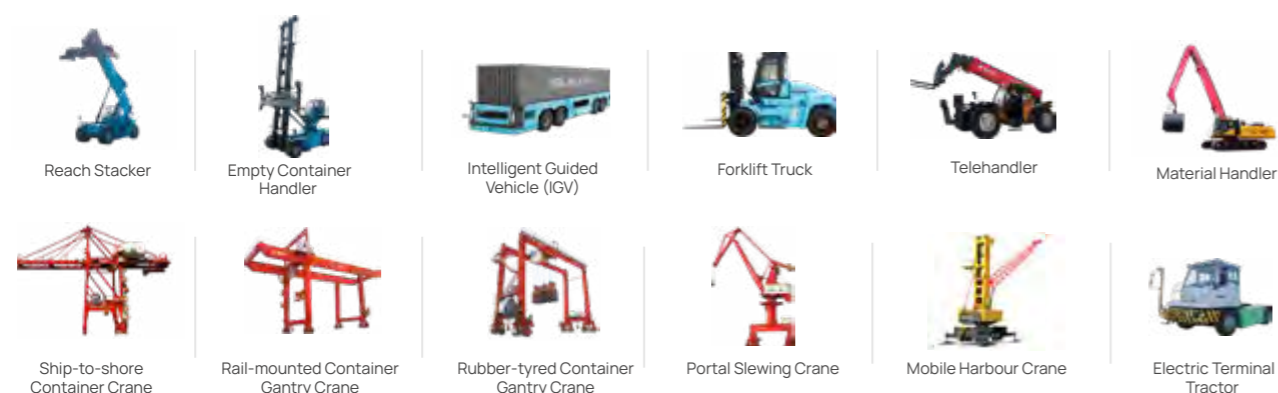
Articulated Dump Truck

PORT MACHINERY



SANY Marine specializes in mobile port machinery (reach stackers, empty container handlers), port cranes (STS, RTG, RMG, jib cranes, MHC, ship unloaders, ship loaders), logistics equipment (material handlers, heavy-duty forklift trucks, electric terminal tractors), and telehandlers. Among these, mobile port machinery holds a global market share of 35%.

maintaining a leading position in the industry. SANY's port crane is technologically advanced and widely used at major global ports such as PSA, APMT, HPH, Ningbo-Zhoushan Port, Guangzhou Port, Yantian Port, China Merchants Port, and COSCO Shipping Ports.



COAL MACHINERY



The first SANY roadheader was off the production line in 2004. Now SANY roadheaders range from 132 kW to 630 kW in total power. SANY's market share in China for mining machinery has exceeded 60% (with hard rock tunnel boring machines over 80%) and has ranked No. 1 for 15 consecutive years. In 2020, SANY's first intelligent roadheader EBZ160i and EBZ260i made its debut.



WAREHOUSE & LOGISTICS FORKLIFT TRUCK



SANY Robotics Technology Co., Ltd. was established during a critical period of SANY Group's intelligent and digital transformation. Inheriting SANY Group's business philosophy that prioritizes "R&D, manufacturing, and service" as core

competencies, the company integrates advanced technologies such as 5G, Industrial Internet, and AI to develop two major business segments: intelligent forklifts and comprehensive logistics solutions.



2-5T CB Forklift Truck



1.5/2T Electric Pallet Truck



1.5/2T Stand-on Electric Pallet Truck

FIRE-FIGHTING EQUIPMENT



SANY has developed more than 60 products, which include 3 series: aerials, firefighting, and rescue. SANY Firefighting Equipment has developed into China's leading firefighting brand, with its long-span Water Tower Fire Truck holding a 50% market share.



Large-span Water Tower Fire Truck



Demolition Fire Truck



Large Tank Water Tower



Elevating Platform Fire Truck



Multifunctional Foam Fire Truck

SANITATION MACHINERY



SANY Environmental, a rising force in SANY Group, focuses on electrifying, smartening, and connecting sanitation equipment. It pioneers modern, intelligent sanitation management, integrating municipal and urban-

rural services to lead China's environmental solutions. Its product lineup spans new energy and fuel-powered sweepers, collection trucks, transfer trucks, and transfer stations.



Road Sweeper



Sprinkler



Compression Garbage Truck



Sweeper Truck



Chassis



Transfer Station

TO INDUSTRIALIZE CONSTRUCTION



SANY Construction, established in 2016 as a subsidiary of SANY Group, is dedicated to providing "Technology · Equipment · Cloud Platform" for Intelligent Construction. Building on SANY's strengths as one of the "Big Three in Construction Machinery" and its industrial IoT capabilities, SANY Construction focuses on prefabricated concrete buildings.

Through extensive research, rigorous validation, and hands-on project implementation, the SANY Prefabricated Construction System (SPCS 365) was developed. SANY Construction aims to make large-scale construction safer, more cost-effective, low-carbon, intelligent, high-quality, faster to build, and resource-efficient.



SPCS Structural Technology



Prefabricated Component Production Line



Autoclaved Aerated Concrete Production Line



Rebar Equipment



Special Transport Vehicles for Prefabricated Members



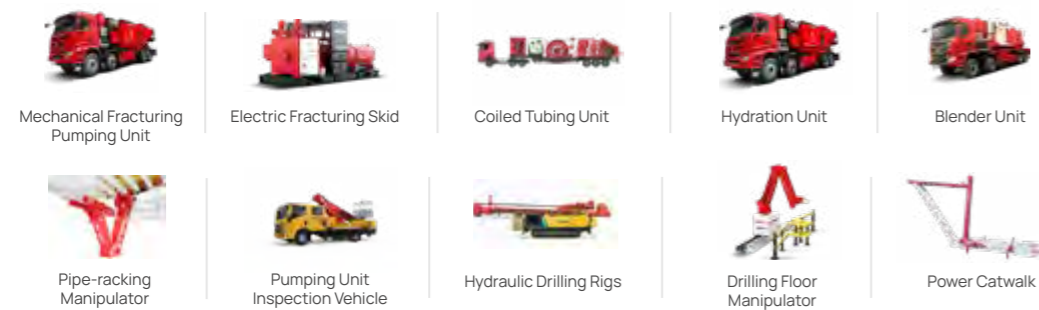
Crushing and Recycling Equipment

ENERGY EQUIPMENT

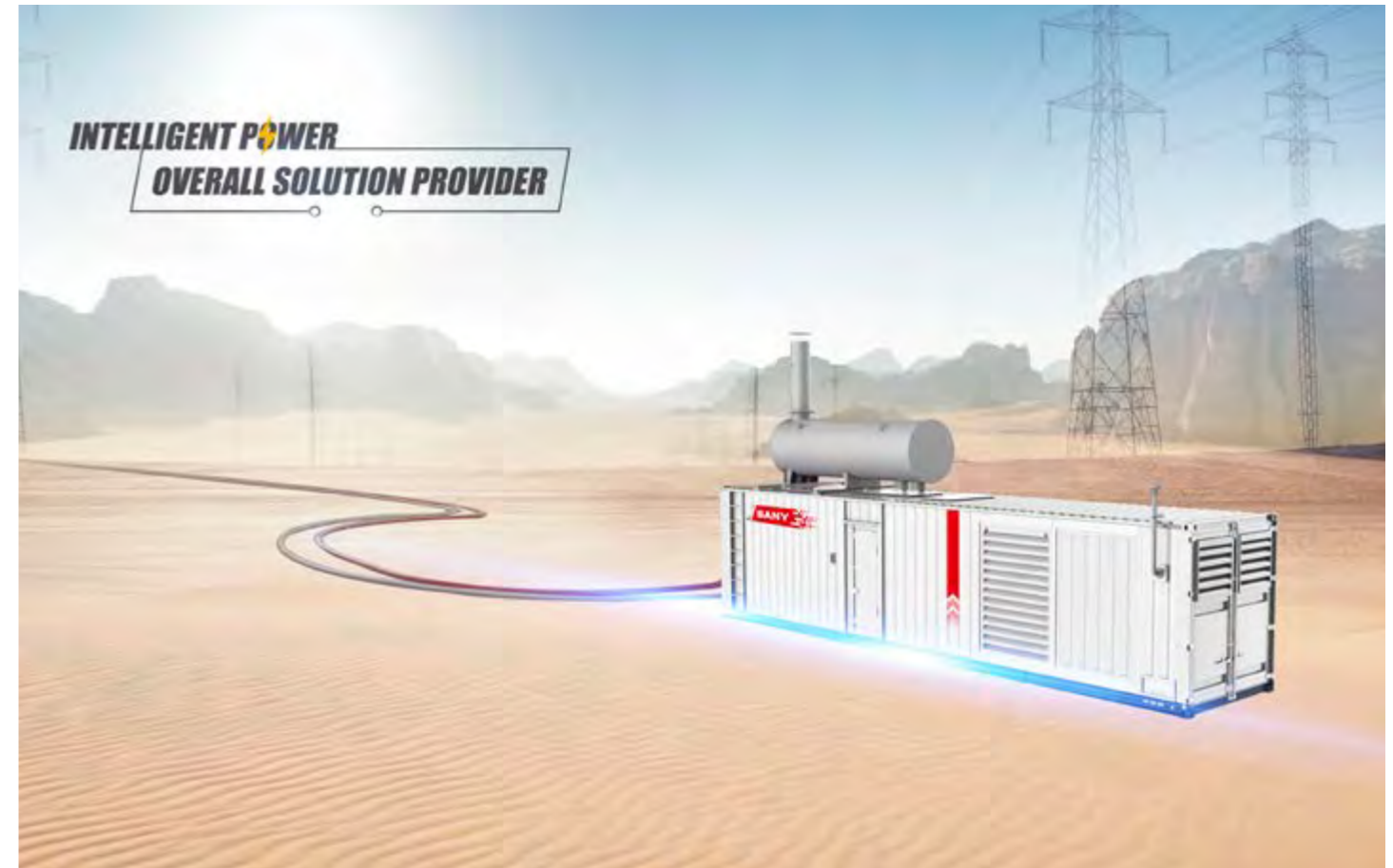


Established in 2013, SANY Energy is a specialized company engaged in the R&D and manufacturing of complete oil and gas field equipment sets, EPC contracting, and oilfield technical services. It is dedicated to providing customers with safe, efficient, intelligent, and eco-friendly complete sets of petroleum equipment, comprehensive solutions, and integrated services. The company currently possesses the industry's most comprehensive series of complete fracturing

equipment sets (mechanical, hydraulic, electric drive), sand mixing equipment, blending equipment, instrumentation, coiled tubing equipment, cementing equipment, sand transport equipment, frequency conversion and power distribution equipment, drilling and workover automation equipment, high-pressure manifold products, and large-scale integrated fracturing unit network control, with its own core technologies and products.



GENSET



SANY Genset covers 3 categories of products: diesel genset, gas genset and methanol genset, including open type, container type, silent box type, trailer type, vehicle-mounted type and so on.

The power range of the company's genset products covers 15 -3190kW, and the frequency of the genset is 50Hz, 60Hz, and so on. The output voltage of the generator sets ranges from DC48- 65V, AC108V- 13800V and so on.





WIND TURBINE

SANY has developed comprehensive wind energy solutions including digital top-level design, intelligent production and manufacturing, complete integration system, core components manufacturing, wind farm designing, EPC, and wind farm operation and maintenance. In January 2025, Windpower Monthly, the leading global publication covering the wind industry, revealed the list of "Turbine of the Year 2024", in which

SANY R.E.'s SI-270150 wind turbine was awarded the Gold Medal in the 'Onshore Turbines 5.91MW-plus' category. This marks the second consecutive year that SANY has won the Gold Award for its onshore large MW turbine models, following the success of the SI-230100 model in 2023.



5.X MW-6.X MW
Platform WTGS



7.X MW-8.X MW
Platform WTGS



8.X MW-11.X MW
Platform WTGS



12.X MW-16.X MW
Platform WTGS

PHOTOVOLTAIC POWER STATION



SANY Silicon Energy specializes in the full-process independent R&D and production of ingots, wafers, cells, modules, and PV power stations. SANY Silicon Energy has successfully developed and implemented GW-scale PV power station projects, demonstrating remarkable strength

in the fields of Green Mining, Green Transportation, Green Manufacturing, and Eco-industrial Parks. It achieves intelligent and refined management throughout the entire value chain, from design and construction to operation and maintenance.

HYDROGEN ENERGY



SANY specializes in the development and manufacturing of hydrogen production and refueling equipment, as well as its core components, and is committed to becoming the world's leading provider of total solutions for hydrogen equipment. 2023, SANY launched a GW-class hydrogen production solution and the world's largest single hydrogen production

electrolyzer. The new S-series square electrolyzer can produce 3,000 Nm³/h of hydrogen using renewable energy. In the future, SANY Hydrogen will continue to increase its R&D investment to empower the global green energy transition and make greater contributions to the popularization and application of clean energy.



Photovoltaic Module

N-TOPCon Photovoltaic Cell

Mini-sized Mobile PV Storage Equipment

Smart Microgrid Solution for Various Scenarios



200Nm³/h PEM Electrolyzer

1000Nm³/h Pressurized Alkaline Electrolyzer

200Nm³/h Skid-mounted Hydrogen Equipment

1000Nm³/h Modular Alkaline Equipment

ENERGY STORAGE



SANY is devoted to the research and development, manufacturing and sales of Power Battery PACK, BESS (Battery Energy Storage System) Container, BESS Tower, BESS Truck, Battery-Swapping Station and BESS Station Operation. It has the ability to invest, design, build and operate Battery-

Swapping Station and BESS Stations, and provides overall solutions. In 2024, SANY launched three new products, BESS Tower (Configure Series PCS), BESS Truck (AC690 or AC380 and DC outputs) and the New Generation BESS Container.



BESS Tower



BESS Container



BESS Truck



Linlong Battery Swapping Station

PUTZMEISTER



The Putzmeister Group develops and produces machinery of high technological quality in the fields of concrete conveying, truck-mounted concrete pumps, stationary concrete pumps, placing booms and accessories, plant technology, conveying viscous industrial materials through pipes, concrete spraying and transport in tunnels and underground, mortar machines, plastering machines, screed conveying, injection

and specialist applications. Market segments include the construction industry, mining and tunneling, large industrial projects, power plants and sewage treatment plants, as well as waste incineration plants, all over the world.

The company is based in Aichtal. With around 4,000 employees, the company generated sales of around 1 billion euros in the 2023 financial year.



Concrete



Truck Mixer



Tunneling & Mining

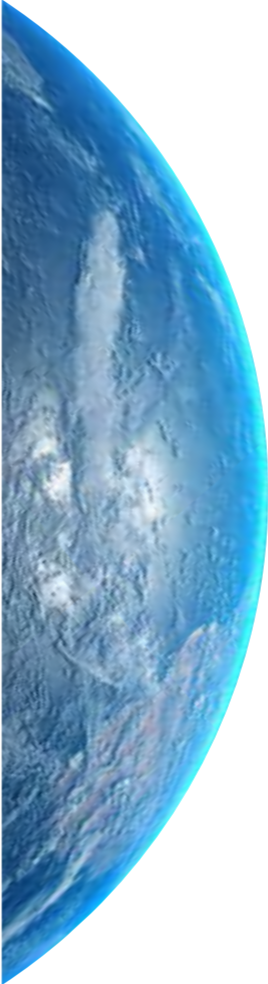
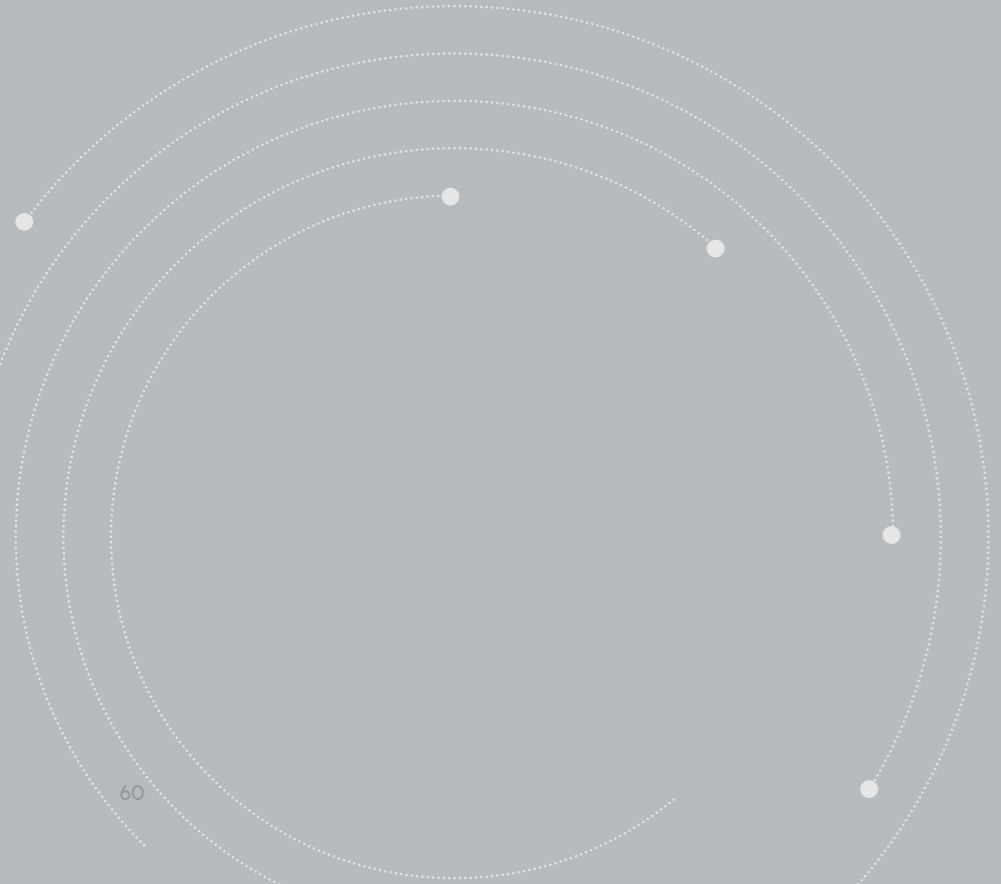


Mortar



Industrial

GLOBAL SUPPORT SYSTEM



S
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DEALERSHIP NETWORK

SANY has established a sales network in more than 180 countries worldwide and has partnered with more than 270 dealers. Together with its global partners, SANY is dedicated to offering better products and services to its global customers under one of the company's strategies- Globalization.



SERVICE & PARTS

With an obsessive attitude, exhaust every possible means to elevate the service to an unparalleled level. At SANY, we deliver unmatched service to ensure every piece of equipment operates at peak performance, maximizing uptime, efficiency, and value for our customers worldwide.



Global Service Support

- 900+ service centers outside China with over 3,500 service engineers ready to assist enable our customer to find us in the shortest path.
- With a 24/7 year-round global call center, our service teams promise quick response, fast arrival, swift problem-solving.
- The Annual Global Service Tour dispatches local service engineers to visit customers and inspect sold machines.



Expert Training System

- State-of-the-art training centers in China, Indonesia, and France with over 180 industry-leading trainers develop highly skilled local service engineers.
- Through a comprehensive system of 298 structured courses, from basics to advanced technical skills, service engineers are systematically developed to meet diverse service demands.

Smart & Reliable Parts Supply

- 7 central warehouses, 47 country hubs, 185 self-owned warehouses, 673 dealer stock points safeguard the parts supply capability and delivery efficiency.
- Real-time online tracking of parts inquiries, orders and deliveries ensure transparency, efficiency, and timely support throughout the service process.



CONSTRUCTION CASES



SANNY

QUALITY CHANGES THE WORLD



ASIA



Three Gorges Dam, China



Landmark 81, Vietnam



Hong Kong-Zhuhai-Macao Bridge





Burj Khalifa Tower, UAE



Shanghai Center, China



China Pavilion at Expo 2020, China



Beijing Daxing International Airport, China



Beijing National Stadium, China



Yangshan Port, China



AMERICA



Mato Grosso, Brazil



Rio Olympics Sites, Brazil

EUROPE



2009 World University Games Project, Serbia and Montenegro



Pelješac Bridge, Croatia



Istanbul Airport, Turkey



Budapest-Belgrade Railway, Hungary and Serbia

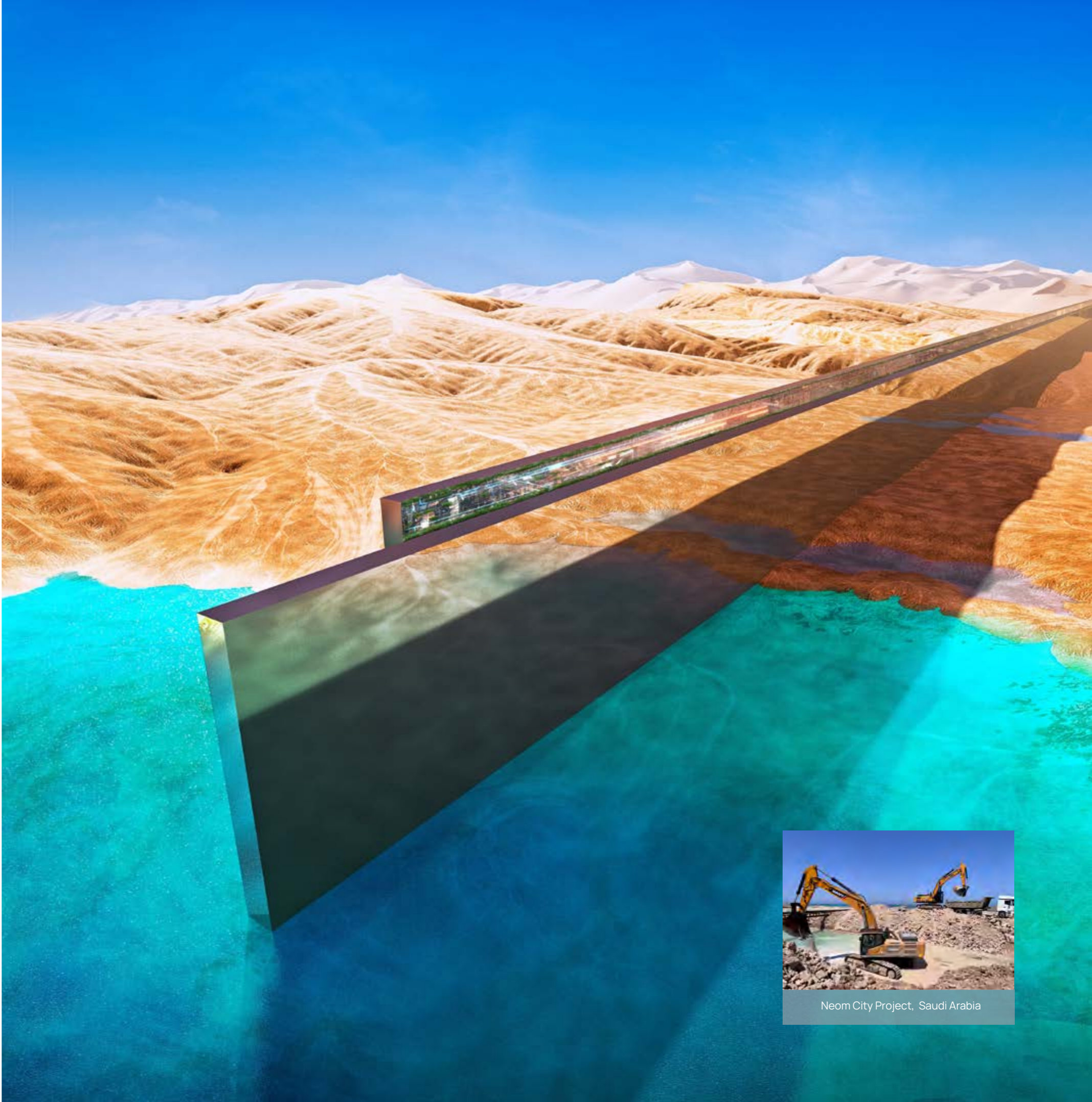


1915 Çanakkale Bridge, Turkey

MIDDLE EAST



The Avenues Park, Bahrain



Neom City Project, Saudi Arabia



Al Janoub Stadium, Qatar

AFRICA



East-West Highway, Algeria



Green Point Stadium, South Africa



Mombasa-Nairobi Railway, Kenya



Adama Wind Farm II, Ethiopia

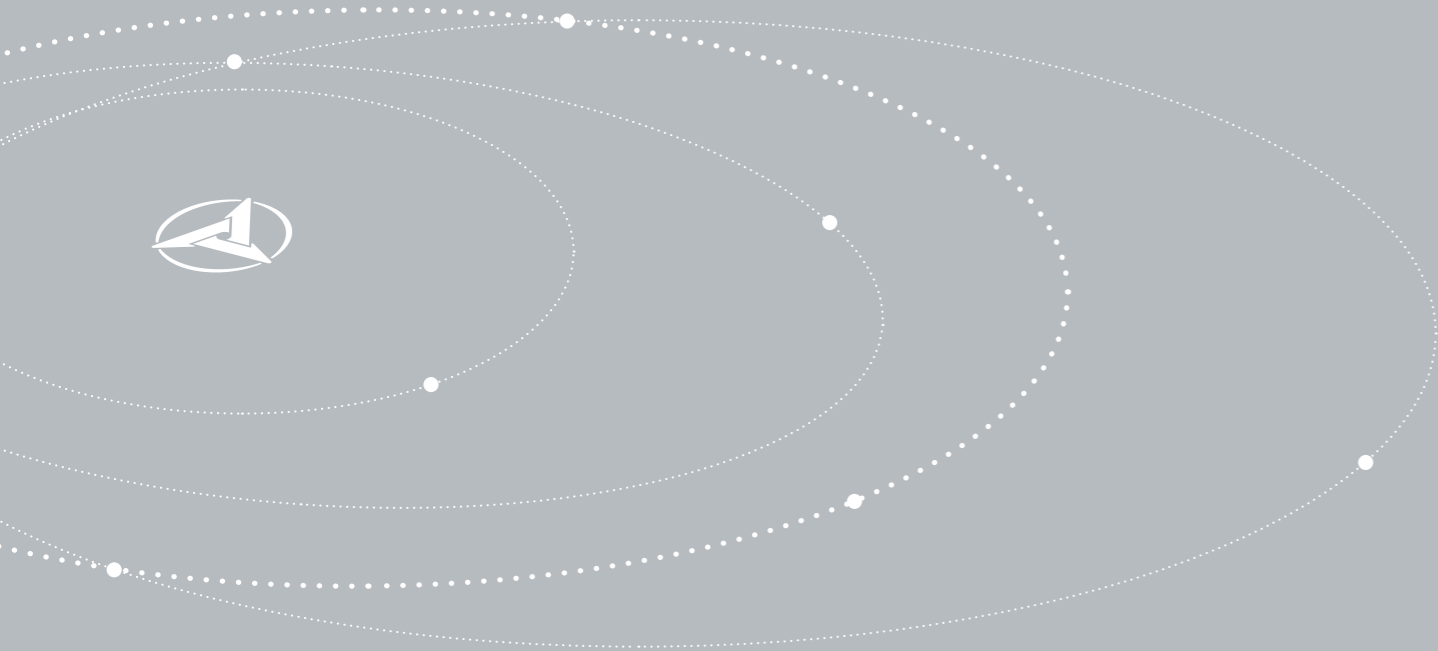


Merowe Dam, Sudan



Dangote Refinery, Nigeria

SOCIAL RESPONSIBILITY



**S
A
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Ongoing Aid Efforts in Times of Crisis

In February 2023, when a major earthquake struck Turkey, SANY swiftly dispatched a 12-person team with around 30 units of machines to the worst-hit region to aid in the earthquake response. In September, a 6.9-magnitude earthquake struck Morocco, resulting in 2,946 fatalities and leaving 5,674 injured. SANY, together with the Morocco dealer "Forges de Bazas" donated seven pieces of equipment to clear the path after the country was hit by the earthquake. The path, a lifeline from the Amizmiz to the affected area, is used to transport medicine, food, and other supplies.

To enhance rescue efficiency, SANY established a technical rescue team, exploring a man-machine-connected rescue approach. Simultaneously, SANY collaborated with local governments to provide professional machinery rescue training for grassroots rescue teams.





Nurturing Rural Education

Since 2007, with a donation of \$12 million to local education, SANY has established a SANY School in Lianyuan and provided subsidies to over ten thousand senior high school students to realize their dreams. In the realm of early childhood education, SANY initiated kindergartens in each village to narrow the educational gap.

With improvements in basic education, SANY has shifted its focus to educational innovation based on local context. In 2022, SANY launched the "Dig and Dig Tinker Education" project, leveraging its construction machinery expertise to provide intellectual development programs for rural children. The project has expanded to over 300 pilot zones nationwide, benefiting more than 22,000 children and allowing them to experience the joy of learning through play.



Caring Next Generation

Committed to improving children's daily lives, SANY Thailand, SANY Financing Thailand, and local partner Maxcrane donated 100,000 THB and essential supplies to a Baan Nokkamin Foundation orphanage on May 16, 2024. Shortly after, on May 25, SANY South Africa launched a social donation campaign at Nyeletis Children's Home in Johannesburg.

In December 2024, SANY Italia donated U.G.I. ODV (Unione Genitori Italiani), an association dedicated to supporting children and adolescents affected by oncohematological diseases. The contribution helped renovate the rehabilitation gym at the UGICARE center, enhancing the facility for young patients in need.





Money Raising for People in Need

On July 16, 2024, SANY sponsored the annual charity soccer match "LA PARTITA del Cuore," organized by Italy's national television network, RAI. This event brought together renowned figures from various fields in Italy to raise funds for medical research, children's welfare, and public benefit. All funds from sponsorships and donations will be donated directly to the Bambino Gesù Hospital in Rome.

The Dream Project of SANY Foundation

In rural areas, SANY Foundation helps talented students get the education they deserve. In 2014, SANY Foundation initiated the Dream Project with an annual investment of 400,000 USD to help students from underprivileged families acquire an equal chance of receiving good education and chasing after a better future.





Donation of Medical Supplies Across the World

During the worldwide outbreak of COVID-19 in 2020, SANY donated over 300 million medical masks to over 30 countries, including Italy, France, Germany, Japan, Austria, and Sweden, and others for fighting against the pandemic.

A German proverb was written on the box of the masks that SANY donated to Germany: "Mountains and valleys don't come together, but humans do." The quote means "Our destiny is closely connected in both good and hard times."

2020 Race Against the Pandemic

In January 2020, with the outbreak of the COVID-19 pandemic in China, SANY rushed to assist in the construction of Fire God Mountain hospital and Thunder God Mountain hospital in Wuhan. SANY promptly delivered 41 cranes, 8 concrete pumps, 22 excavators and over 40 service engineers to the site. They completed the construction project in 4 days, which originally would have taken 2 months, ensuring the delivery of the two hospitals in record time and making contributions to the fight against the pandemic.



SUSTAINABILITY



QUALITY CHANGES THE WORLD

SAANNY



Sustainability at SANY

SANY contributes to the society by both providing quality products and fulfilling its corporate social responsibility, which is centered on achieving sustainable development of the industry, society and individuals.

Sustainability Strategy

We are at a critical moment in human history, where every one of us, by making choices today, can decide what the world we live in will be like tomorrow. As a responsible, visionary and aspiring global enterprise, SANY supports the UN 2030 Agenda for Sustainable Development. In decision making, we focus on global trends and challenges, international norms of responsible business behavior, and stakeholders' expectations.

Sustainability Framework

Carbon Neutrality

Under the background of a low-carbon future featuring a carbon emissions peak and carbon neutrality, SANY is now leading the wave of electrification in responding to the call for an electrical era that is widely echoed across the industry.

- In 2024, SANY Heavy Industry invested 72.33 million USD in environmental protection.
- The clean energy usage totaling 76.072 million kWh, with a clean energy usage ratio of 13.8%. Energy consumption in non-production areas ↓ 13% YoY.
- Energy-saving and consumption-reduction projects carried out during operations saved approximately 4.507 million USD in energy costs.

Renewable Energy

SANY Renewable Energy explores the low-carbon development of the manufacturing industry through developing intelligent renewable-energy products covering wind power, photovoltaic power, hydrogen energy, and energy storage.

2024, SANY Heavy Industry obtained 70 patents in clean technology, with revenue from low-carbon products reaching 560 million USD.

People

The Beijing SANY Foundation (SANY Foundation), initiated by SANY Group, was established on December 31, 2013 in the Beijing Municipal Civil Affairs Bureau. SANY Foundation holds the mission to promote "science and public welfare", by empowering the public good to fully realize its value, thus bringing real change to the world and building a vibrant, caring and trusting society.

Providing local employment is not only a key aspect of corporate social responsibility, but also a core practice in advancing sustainable development. By the end of 2024, SANY's localization rate of employees outside China reaches 89%, providing jobs for over 9,000 people.



QUALITY CHANGES THE WORLD



MySANY App



Follow us

SANY Group Co., Ltd., China



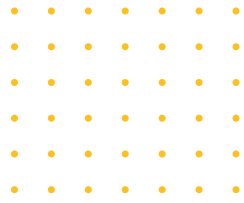
RA-ESG
SOLAR SOLUTIONS

**RA-ESG PLC
GROUP REPORT**

2025/6

RA-ESG Group structure, shareholding and project reports as of:

1st December 2025



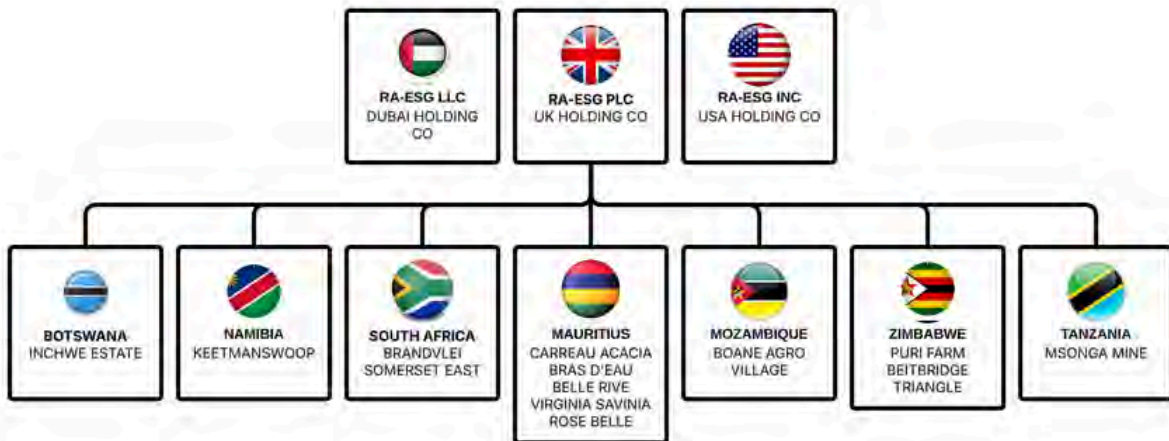
Market expansion and Growth.



Initially planned as a year of consolidation, 2025 turned out to be a period of tremendous market penetration and growth.

Our group now holds a pipeline of approximately 2.1 GW of potential capacity, which translates to an annual output of 5,000 GWh or ±\$380 million in revenue.

The RA-ESG Project Group



Apart from a small number of preliminary project discussions in central and South America, 80% of project capacity is located in sub-Saharan Africa. Predominantly, the solar projects are government-backed, grid-connected facilities of 100MW or over.

Clicking on each project country will access the technical and financial reports in respect of each project, together with all government permissions and certificates.



Company History

Incorporated by a conglomerate of corporate financiers and engineering specialists in response to a heightened level of sustainable and renewable energy finance applications.



2023-2024

Listing of financial instruments on EU Stock Exchange, Euroclear, Clearstream and Bloomberg.

2024

Initiation of Government Public-Private-Partnership Schemes.

Phase 1 of Proprietary Solar Project Software Application.

Acquisition of 100MW Puri Farm project

2025

Incorporation of US Subsidiary.
7 new projects online totalling ± 2GW
Opening of Mauritius, Johannesburg and Harare offices.

Acquisition of Decimate Building Management systems and RA-Guard.
Acquisition of Msonga Mine contract and holdings.

The Platform

We provide a cradle-to-grave solar facility management system whereupon RA-ESG initiates, manages and controls the Funding, Design, Engineering, Procurement, Construction and Commissioning of International Solar Projects.

The Asset Base

In addition to acting as a professional service provider to state-owned, public and private solar facilities, RA-ESG also develops its own proprietary projects. This approach generates two forms of revenue:

- Third-party fees from solar developer clients, and
- Net Profits resulting from energy sales.

Solar

The project process



As with all successful businesses, process, order and discipline reign supreme, and the commissioning of solar facilities is no exception.

Well over three-quarters of all potential solar farms fail in their first six months due to mismanagement of the technical and financial process pre-funding.

RA-ESG's proprietary software manages each step of the chain from the initial feasibility study, through the required government permissions to the final project commissioning.

The process is the same irrespective of whether RA-ESG owns the project, or, is providing professional services to a third party.



Our Services

RA-ESG's proprietary software application, together with its knowledge and experience in the sustainable/renewable energy sector, moves projects quickly and efficiently through the commissioning process.



Initial Studies

Land Report.
Irradiation Study.
Grid Connectivity.



Feasibility

Indicative Tariff.
Cashflow
Projections.
CAPEX & OPEX.



Technology

Grid Impact.
Design Study.
Energy and
Autonomy.



Funding

Seed Capital
Mezzanine &
Main Round
Project Funding.

Worldwide representation

RA-ESG is based in London, England and Mauritius. The company also maintains local offices in South Africa, Zimbabwe, Mexico, India and the USA. It currently has in excess of 2.1GW of potential capacity in 11 projects, all in varying stages of development.



Local Offices

RA-ESG HQ: London & Mauritius
 Representative Offices:
 Mexico, Delaware-USA, Johannesburg-South Africa, Harare-Zimbabwe, Dubai-United Arab Emirates, Tamil Nadu - India.

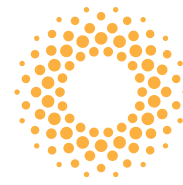


Projects

Belize x1, Colombia x1, Portugal x1, Montenegro x 1, Croatia x1, Italy x 1
 Zimbabwe x4, South Africa x2, Botswana x1, Namibia x 1, Mozambique x1, Tanzania x1, Mauritius x3

Methodology

RA-ESG business methodology works similarly to a conveyor moving left to right. Projects early in their discovery stage are loaded onto the left, and as they progress by collecting reports, studies, certificates and government permissions, they move to the right; eventually, they gain funding and become "shovel ready".



2025 Snapshot

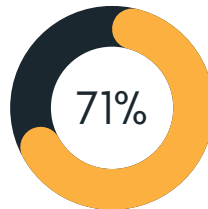
Fixed Assets 2025	\$ 166,229,985	• • • • •
Net Assets 2025	\$ 117,574,219	• • • • •
Pipeline Capacity	2.1GW	• • • • •
Pipeline Output	5,000 GWh	• • • • •
Pipeline Annual Revenue	\$ 470,862,000	• • • • •

*based upon a projected 2.1GW of current anticipated pipeline capacity.

*based upon a projected 5,000GWh of current anticipated pipeline output.

Assets over liabilities.

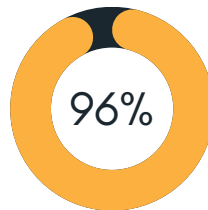
Total Group liabilities currently amount to less than 30% of our total assets



RA-ESG currently holds \$166m in fixed-term investments (assets), with \$2.5m of short-term and \$46m of long-term liabilities. Liabilities are over 90% made of acquisition costs.

Security

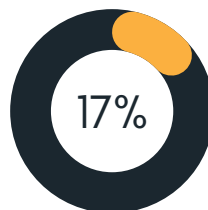
Secured Investors currently hold 25:1 risk coverage (\$25.00 of security for every \$1.00 invested).



Individual and Institutional Debt and Equity Investments (Bonds, Preference Shares etc) currently calculate to less than 4% of RA-ESG's total Fixed Assets.

Project Retention

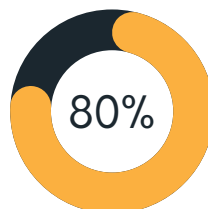
In the event RA-ESG elects to retain projects (as opposed to sell them), each project would return an average of 17% p.a. revenue.



At a "useful project life" of 32 years, and an average tariff of \$00.09¢ / KW/h (with zero inflation over the project lifetime) a 100MW facility will produce \$17.3m energy revenue per annum

Project Sale

Should RA-ESG dispose of each project upon commissioning, then the annual ROI on utilised cashflow calculates to:



RA-ESG's preferred business model is to sell projects early in their lifecycle to financial institutions that wish to acquire annuity streams of income for their pension funds.

Assumes a project EPC cost of \$1m/MW, and a discounted cashflow basis valuation method using a WACC of 6.72% (Deloitte/Axcentium).

Project Valuation

The discounted cashflow method of valuation produces a conservative valuation based upon the free cashflows of each project.



As an easy example to follow;

- A 100MW farm costs ± \$100m to construct.
- A 100MW farm produces ± 192GWh of energy per annum.
- An average farm is awarded a tariff of \$00.09 per kWh.
- Without calculating any inflation in the energy price over the 32 years period, the farm produces:
 - \$17.3m per annum
 - \$553m over the term

$$\text{Value} = \sum_{t=1}^n \frac{C}{(1+y)^t} + \frac{FV}{(1+y)^n}$$

Calculation

C: is the free cashflow at time (t) (income minus expenses)

y: is the weighted average cost of capital, which reflects the cost of borrowing in the capital markets and the expected rate of return by equity holders weighted by the capital structure of the projects

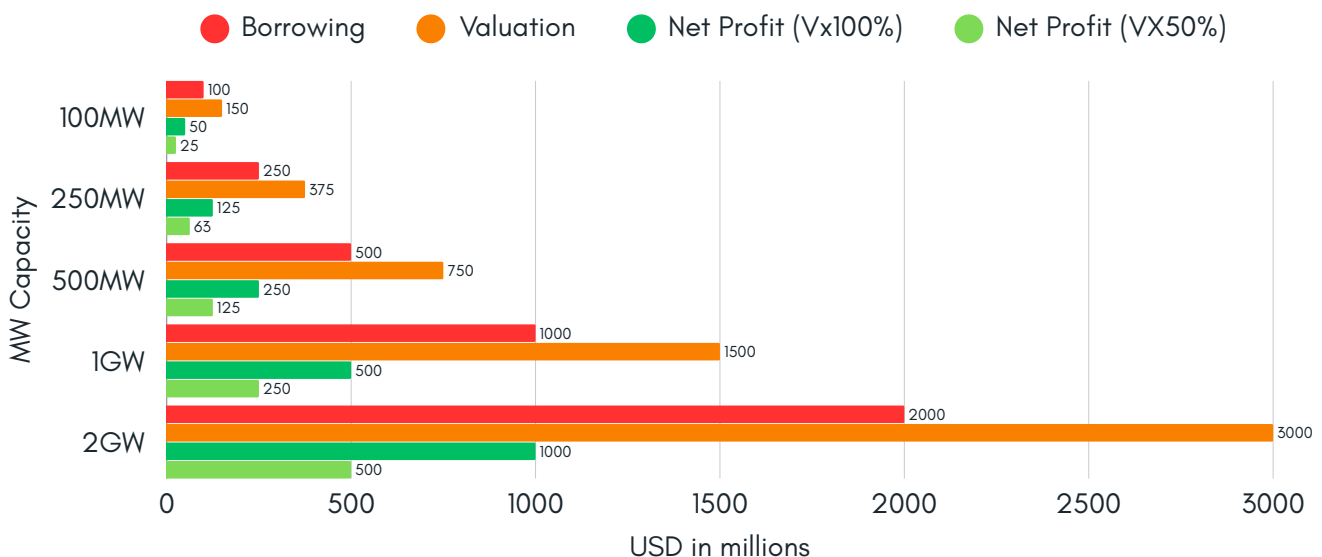
FV: is the residual value at the end of the project.

n: in the total number of years that the project runs for.

WACC

(Weighted Average Cost of Capital)

6.72%



Securitisation

Without doubt, RA-ESG's skillset and methodology, especially in terms of the way it securitises large-scale solar projects, is one of the major reasons its partners and investors feel so secure.



The challenge

By their very definition, emerging market countries are embryonic economies in the process of empowering populations and lifting themselves out of poverty.

Many multinational companies have recognised the low-wage and reduced-cost opportunities of these jurisdictions and have based large manufacturing facilities in the emerging markets.

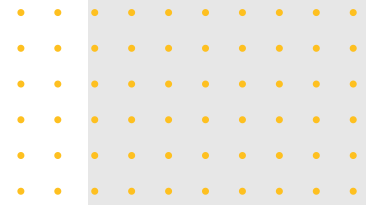
As these nations grow, their GDP expands at a far faster rate than the "first-world". As example: Africa's projected GDP growth rate for 2025/2026 is 4.3%, whilst the UK is projected at 1.3% and the EU at 1.4%. It's therefore surprising that some first-world banks are hesitant to lend into these new markets; almost without exception, their reasoning is a lack of bankable security. In most cases, this is due to an aggressive GDP growth curve devouring available sovereign credit before the establishment of audited assets.

The resulting problem... major lending institutions are reticent to lend funds to emerging market sovereign states.

The solution

- Execute PPP (Public-Private Partnerships) with the state-owned utility companies, allowing direct access to private intensive energy users in need of a budget-conscious, uninterrupted power supply.
- Collateralise security in the form of fixed and floating debentures held over private companies with strong balance sheets.
- Combine the Sovereign State Guarantees with the much stronger and more focused collateral provided by the private multinational companies to form a highly bankable credit guarantee.
- Combine both with a fixed and floating debenture over 100% of the shareholding and assets of RA-ESG PLC.

The result... a robust bankable project guarantee comprising Government Guarantees, Private Enterprise, RA-ESG and the ongoing security provided under the terms of the Power Purchase Agreement itself.



Our business divisions



Solar Farms

Land Report.
Irradiation Study.
Grid Connectivity.

Our core business model is in the exploration, study, preparation, certification, engineering, procurement, construction and funding of large scale solar facilities.

RA-ESG: Utilising its proprietary software application, securitisation process, and team of professional service providers, RA-ESG can move faster and more efficiently through the emerging market's energy sector, and in the process earn higher than average returns.



Building & Energy Management

SMART self-analysing active energy reduction

Our cloud-based building and infrastructure analytics platform. RA-Decimate provides a comprehensive suite of energy and cost-saving solutions across multiple assets.

RA-DECIMATE: Permanent live monitoring, automated analysis and reactive switching, to trace and eradicate wasteful energy usage across main supply and local distribution networks. RA-Decimate drives energy efficiency, productivity and suitability, all contributing to the bottom-line.



Air Health

Anti-Pathogen air control

Surface Bonding Sanitiser Technology, improving infection prevention and control in high-volume personnel environments.

RA-GUARD: Kills 99% of all airborne viruses by forming a monomolecular layer that adheres to surfaces, ensuring consistent anti-microbial protection. Disrupts pathogens via cell lysis, reducing recontamination risks.

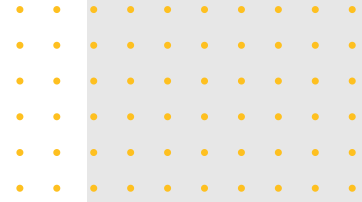


Gold Mining

Gold leaching and mining energy supply.

RA-ESG's core business model is and will always remain the generation of sustainable/renewable energy; however, a number of our clients are mines...

RA-GOLD: Gold mining on an industrial scale is highly energy intensive; the process of grinding, crushing of ore, lighting and ventilation can account for over 60-70% of a mine's energy consumption. RA-Gold has entered into bespoke energy agreements whereupon our group is paid in gold bullion at discounted rates.



Investing with RA-ESG



DEBT INSTRUMENTS

Bonds
and
Loan Notes

GBP-EUR-USD Income and Growth Bonds **3 or 5 Year Terms** **12% p.a. or 15% p.a.**

BONDS: All Bonds are listed on the Vienna Stock Exchange MTF, Euroclear, Clearstream, and Bloomberg. Income Bonds pay income at the rate of 1% per month, Growth Bonds compound at 15% per annum. Fully Asset Backed, guaranteed by a Trust Deed, Fixed & Floating Debenture over 100% of RA-ESG PLC assets and shareholding.



EQUITY

Ordinary
and
Preference Shares

GBP-USD Preference Shares **Minimum 2 Year hold.** **12% (Guaranteed) to 18% (Targeted) annual return**

EQUITIES: RA-ESG offers two categories of shares; Ordinary Shares and Preference Shares. Ordinary shares are by private negotiation. Participating Preference Shares pay a minimum guaranteed dividend of 12% per annum, with an additional targeted 6% p.a. in profit project profit-share.



SHARIAH

Equities and Trading
Transactions

GBP-EUR-USD Shariah Compliant Preference Shares. **GBP - USD Syndicated Solar Panel Management.** **12-20% per annum ROI.**

Shariah-compliant investors come from a number of different regions, and we appreciate that some are more conservative than others. All of our Shariah-compliant investments are Riba-free, and some have the "Guaranteed Return" clause removed for even stricter compliance.



PROJECT PARTICIPATION

Direct and
Syndicated Project
Finance Schemes

GBP-EUR-USD Syndicated Solar Panel Management. **Minimum Guaranteed 1% per month ROI (Targeted 2%).** **Project Seed Capital and Mezzanine Finance.**

From an extremely simple Solar Panel management scheme starting at \$100 per panel, to complex hybrid debt/equity project-finance programmes; RA-ESG offers sustainable/renewable investment opportunities at every level.

RA-Decimate

Improve the operational performance of your buildings with real-time actionable intelligence.

Over 35 features, including intuitive control, remote monitoring, CAFM, and Smart Automation, making your facilities not just functional but smartly efficient.



Decimate: The analytics platform is a robust, cloud-based building intelligence solution designed to seamlessly integrate with existing site infrastructure. It provides real-time visibility and centralised control across critical assets—including HVAC systems, lighting, CCTV, refrigeration units, and more—by continuously monitoring key operational parameters such as temperature, motor speed, and status signals.

In addition to permanent live monitoring and automated data analysis, the platform incorporates advanced capabilities to trace wasted energy usage across both the main supply and local distribution networks. This enables precise identification of inefficiencies and supports targeted corrective actions.

The result is a comprehensive suite of benefits: substantial energy and cost savings, reduced carbon footprint, optimised asset performance, proactive fault detection, and streamlined compliance reporting. Ultimately, the platform transforms conventional facilities into fully SMART, self-analysing environments that drive efficiency, productivity, and sustainability.



Buildings using Decimate

100+

Average instant energy savings

24.6%

Surface-Bonding Sanitiser Technology

- Forms a monomolecular layer that adheres to ductwork surfaces, ensuring consistent coverage.
- Provides immediate microbial kill upon application.
- Remains active when dry, delivering extended antimicrobial protection.
- Mechanically disrupts pathogens via cell lysis, reducing recontamination risks.
- Supports compliance with air quality and hygiene standards by offering long-lasting, non-volatile protection.

Even with the highest level of manual cleaning, surfaces are at continual risk of contamination and the transference of microbes to multiply and grow.

Mechanical Ventilation Systems can provide ideal conditions for microbial growth bringing unclean air into office spaces causing 'Sick Building Syndrome' (SBS), aiding the spread of viruses like the common cold, influenza and Coronavirus family among building users.

Offices, factories, municipal / community buildings, public transport and hospitals all suffer from an incredibly high incidence of airborne infections. To use one recently published clinical data study; Hospital HCAI (Health Care Airborne Infections):

- An estimated 1,000,000 HCAI's per annum.
- More than 99% attributable to patient management.
- Cost to the National Health Service £2.7billion.
- 28,500 patient deaths.
- 7.1million occupied hospital bed nights (equivalent to 21% of total availability).
- 79,700 sick-days of absenteeism.



The amount of different types of Bacteria:
43,000+



Carreau Accacia - Mauritius



**1 x 40MW
82GWh p.a**



**4H - 20mins
Na-ion**



**Tariff: \$00.10¢
O&M: 7.5%
Land: ± 6.2%
Rev: \$7.3m p.a.**



**EPC: \$44m
80% Local Bank
20% Seed Cap.
10 Year Loan**

Overview

40MW situated in the south of Mauritius.

Grid-connected, supplying energy directly to the Central Electricity Board under the tender scheme.

Links

(all subject to NCNDA)

- Cashflow
- Google Earth Locations and Plans.
- Project Sheet
- Bill of Quantities
- Energy Report
- BESS Report
- Design Report
- Financial Analysis
- Layout
- Powerflow
- Cables
- Posts
- Land Lease
- Power Purchase Agreement
- EPC Contract

Valuation

Based upon:

- The average tariff of \$00.09,
- A 32-year useful life,
- 6% p.a. borrowing
- WACC of 6.72%
- EPC cost of \$1m / MW
- Residual Value of 40% of EPC cost

\$59.6m





Bras D'eau - Mauritius



**1 x 10MW
21GWh p.a**



**4H - 20mins
Na-ion**



**Tariff: \$00.10¢
O&M: 7.5%
Land: ± 10%
Rev: \$1.8m p.a.**



**EPC: \$12m
80% Local Bank
20% Seed Cap.
10 Year Loan**

Overview

A small 10MW project sitting upon 26 hectares of land in the North-East of Mauritius.

The project will fall under the CEB Tender Scheme.

Links

(all subject to NCNDA)

- Cashflow
- Google Earth Locations and Plans.
- Project Sheet
- Bill of Quantities
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- BESS Report
- Design Report
- Financial Analysis
- Layout
- Powerflow
- Cables
- Posts
- Land Lease (Subject to NCNDA)
- Power Purchase Agreement (Subject to NCNDA)
- EPC Contract (Subject to NCNDA)

Valuation

Based upon:

- The average tariff of \$00.09,
- A 32-year useful life,
- 6% p.a. borrowing
- WACC of 6.72%
- EPC cost of \$1m / MW
- Residual Value of 40% of EPC cost

\$14.9m





Puri Farm - Alaska - Zimbabwe



2 x 50MW
192.2GWh p.a



TBA mins
Na-ion



Tariff: \$00.089
O&M: 5%
Land: ± 8%
Rev: \$19m p.a.



EPC: \$108m
95% FEPC
5% Seed Cap.
Debt + Equity

Overview

2 Projects of 50MW each, situated in Zimbabwe. Grid-connected, supplying energy to large multi-national mining and steel production off-take partners.

Links

(all subject to NCNDA)

- Cashflow
- Google Earth Locations and Plans.
- Sub-Station Video
- Grid Impact Assessment
- Grid Connection Agreement
- Environmental Impact Assessment
- Energy Generation Licence
- Project Sheet
- Bill of Quantities
- Energy Report
- BESS Report
- Design Report
- Financial Analysis
- Layout
- Powerflow
- Cables
- Posts
- Land Lease (Subject to NCDA)
- Power Purchase Agreement (Subject to NCDA)
- EPC Contract (Subject to NCDA)
- Grid Impact Assessment

Valuation

Based upon:

- The ZESA tariff of \$00.0897, and a SAPP tariff of \$00.16
- A 32-year useful life,
- 6% p.a. borrowing and equity sacrifice
- WACC of 6.72%
- EPC cost of \$1m / MW
- Residual Value of 40% of EPC cost

\$149.6m





Msongu - Tanzania



1 x 25MW
44.2GWh p.a



120mins
Na-ion



Tariff: \$00.10*
O&M: 5%
Land: ± 8%
Rev: \$5m p.a.



EPC: \$27m
95% FEPC
5% Seed Cap.
Debt + Equity

Overview

The EPC cost is guaranteed by 440,000 ounces of gold proven by recent geological study. RA-ESG has taken a substantial shareholding and control of the company. A commodity swap (Energy for Gold).

Valuation

Based upon:

- The tariff of \$00.10* is payable in terms of the energy generated (although RA-ESG owns half of the gold deposits.
- A 32-year useful life,
- 6% p.a. borrowing and equity sacrifice
- WACC of 6.72%
- EPC cost of \$1m / MW
- Residual Value of 40% of EPC cost

*or \$00.12 if paid in gold.

\$35m +asset

Links

(all subject to NCNDA)

- Cashflow
- Google Earth Locations and Plans.
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- EPC Contract (Subject to NCNDA)
- Grid Impact Assessment





Keetmanshoop - Namibia



54MW
100GWh p.a



180mins
Na-ion



Tariff: \$00.08
O&M: 5%
Land: ± 10%
Rev: \$8.5m p.a.



EPC: \$60m
95% FEPC
5% Seed Cap.
Debt + Equity

Overview

30 Kilometres east of Keetmanshoop, the project will connect directly to NamPower via the Kokerboom high-voltage sub-station. It is near the 2.9MW Neckertal hydro-electric dam.

Valuation

Based upon:

- NamPower tariff of \$00.09
- A 32-year useful life,
- 6% p.a. borrowing and equity sacrifice
- WACC of 6.72%
- EPC cost of \$1m / MW
- Residual Value of 40% of EPC cost

\$80m

Links

(all subject to NCNDA)

- Cashflow
- Google Earth Locations and Plans.
- Sub-Station Video
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- Project Sheet
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- Land Lease (Subject to NCNDA)
- Power Purchase Agreement (Subject to NCNDA)
- EPC Contract (Subject to NCNDA)
- Grid Impact Assessment





How Mine - Bulowayo - Zimbabwe



300MW
778GWh p.a



240mins
Na-ion



Tariff: ±\$00.10
O&M: 5%
Land: ± 0%
Rev: \$54m p.a.



EPC: \$320m
95% FEPC
5% Seed Cap.
Debt + Equity

Overview

A 300MW facility situated on private land, and predominantly supplying the How Gold mine in Bulowayo, Zimbabwe.

Links

(all subject to NCNDA)

- Cashflow
- Google Earth Locations and Plans.
- Sub-Station Video
- Grid Impact Assessment
- Grid Connection Agreement
- Environmental Impact Assessment
- Energy Generation Licence
- Project Sheet
- Bill of Quantities
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- Layout
- Powerflow
- Cables
- Posts
- Land Lease (Subject to NCNDA)
- Power Purchase Agreement (Subject to NCNDA)
- EPC Contract (Subject to NCNDA)
- Grid Impact Assessment

Valuation

Based upon:

- The ZESA tariff of \$00.0897, and a SAPP tariff of \$00.16
- A 32-year useful life,
- 6% p.a. borrowing and equity sacrifice
- WACC of 6.72%
- EPC cost of \$1m / MW
- Residual Value of 40% of EPC cost

\$447m





Project Sheet - ZIM 4 Triangle - Zimbabwe



45MW
100GWh p.a



240mins
Na-ion



Tariff: \$00.089
O&M: 5%
Land: ± 20%
Rev: \$8m p.a.



EPC: \$55m
95% FEPC
5% Seed Cap.
Debt + Equity

Overview

Situated in Zimbabwe. Grid-connected, supplying energy to large multi-national mining and steel production off-take partners.

Links

(all subject to NCNDA)

- Cashflow
- Google Earth Locations and Plans.
- Sub-Station Video
- Grid Impact Assessment
- Grid Connection Agreement
- Environmental Impact Assessment
- Energy Generation Licence
- Project Sheet
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- Layout
- Powerflow
- Cables
- Posts
- Land Lease (Subject to NCNDA)
- Power Purchase Agreement (Subject to NCNDA)
- EPC Contract (Subject to NCNDA)
- Grid Impact Assessment

Valuation

Based upon:

- The ZESA tariff of \$00.0897, and a SAPP tariff of \$00.16
- A 32-year useful life,
- 6% p.a. borrowing and equity sacrifice
- WACC of 6.72%
- EPC cost of \$1m / MW
- Residual Value of 40% of EPC cost

\$67m





Beitbridge - Zimbabwe



46MW
121GWh p.a



300 mins
Na-ion



Tariff: \$00.089
O&M: 5%
Land: ± 20%
Rev: \$8.5m p.a.



EPC: \$55m
95% FEPC
5% Seed Cap.
Debt + Equity

Overview

Situated on both sides of the border between Zimbabwe and South Africa, the border post is the busiest in Southern Africa. RA-ESG will start the project with 1 x 46MW, and then expand to 100MW upon completion of the first phase.

Valuation

Based upon:

- The ZESA tariff of \$00.0897, and a SAPP tariff of \$00.16
- A 32-year useful life,
- 6% p.a. borrowing and equity sacrifice
- WACC of 6.72%
- EPC cost of \$1m / MW
- Residual Value of 40% of EPC cost

\$68.5m

Links

(all subject to NCNDA)

- Cashflow
- Google Earth Locations and Plans.
- Sub-Station Video
- Grid Impact Assessment
- Grid Connection Agreement
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- Project Sheet
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- Land Lease (Subject to NCNDA)
- Power Purchase Agreement (Subject to NCNDA)
- EPC Contract (Subject to NCNDA)
- Grid Impact Assessment





Brandvlei - South Africa



1GW
4 Phases of
250MW

3,200GWh p.a



TBA mins
awaiting
ESKOM
Na-ion



Tariff: \$00.07-8
O&M: 5%
Land: ± 10%
Rev: \$220m p.a.



EPC: ±\$1b
(BESS?)
95% FEPC
5% Seed Cap.
Debt + Equity

Overview

A substantial 1GW solar facility situated in the best irradiation zone within South Africa. RA-ESG's land partner is also the owner of the Namibian site.

Links

(all subject to NCNDA)

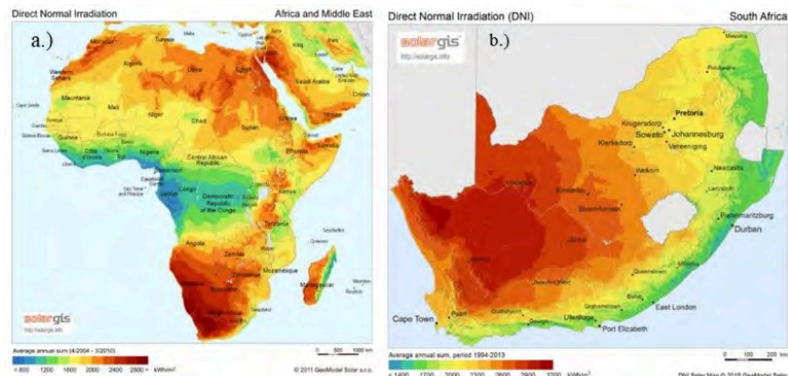
- Cashflow
- Google Earth Locations and Plans.
- Sub-Station Video
- Grid Impact Assessment
- Grid Connection Agreement
- Environmental Impact Assessment
- Energy Generation Licence
- Project Sheet
- Bill of Quantities
- Energy Report
- BESS Report
- Design Report
- Financial Analysis
- Layout
- Powerflow
- Cables
- Posts
- Land Lease (Subject to NCDA)
- Power Purchase Agreement (Subject to NCDA)
- EPC Contract (Subject to NCDA)
- Grid Impact Assessment

Valuation

Based upon:

- An estimated tariff of \$00.07 to 00.08
- A 32-year useful life,
- 6% p.a. borrowing and equity sacrifice
- WACC of 6.72%
- EPC cost of \$1m / MW
- Residual Value of 40% of EPC cost

\$1.5b





Boane Agro - Maputo - Mozambique



1x10MW
18GWh p.a



120 mins
Na-ion



Tariff: \$00.08
O&M: 7%
Land: ± 0%
Rev: \$1.8m p.a.



EPC: \$12m
95% FEPC
5% Seed Cap.
Debt + Equity

Overview

A phased bankable pilot energy scheme to initiate an agro-industrial green housing estate and food processing zone on the Beluluane extension of Boane, Mozambique.

Valuation

Based upon:

- The tariff of \$00.08, and a profit-share component.
- A 32-year useful life,
- 6% p.a. borrowing and equity sacrifice
- WACC of 6.72%
- EPC cost of \$1m / MW
- Residual Value of 40% of EPC cost

\$12.8m

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Somina - Niksic - Montenegro



240MW
457GWh p.a



360MWh
Na-ion



Tariff: \$00.10
O&M: 5%
Land: ± 0%
Rev: \$47m p.a.



EPC: \$200m
95% FEPC
5% Seed Cap.
Debt + Equity

Overview

A newly acquired instruction that is currently under negotiation.

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Valuation

Based upon:

- The tariff of \$00.10
- A 32-year useful life,
- 6% p.a. borrowing and equity sacrifice
- WACC of 6.72%
- EPC cost of \$1m / MW
- Residual Value of 40% of EPC cost

\$375m





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